XR-C290RDS

SERVICE MANUAL

AEP Model
UK Model

Model Name Using Similar Mechanism	XR-6690RDS
Tape Transport Mechanism Type	MG-50EX2-39

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	58 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 281 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 50 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	30 W × 4 (at 4 ohms)

General

Output lead	Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 177 mm (w/h/d)
Mounting dimension	Approx. 182 × 53 × 155 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents

FM/MW/LW CASSETTE CAR STEREO

SONY®

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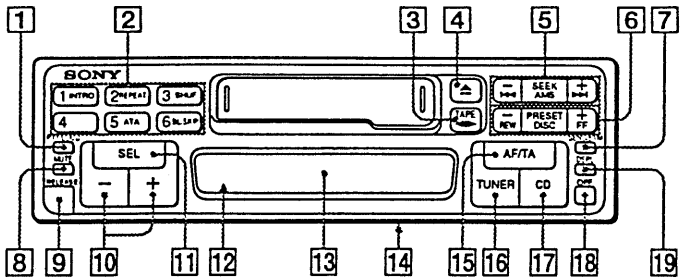
Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Location of controls



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Refer to the pages for further details.

1 PTY (programme type)/LOUD (loudness) button 10, 11

2 During radio reception:
Preset number buttons 7

During tape/CD playback:
① INTRO button 6, 12
② REPEAT button 6, 12
③ SHUF button 12, 13
⑤ ATA (Automatic Tuner Activation) button 6
⑥ BL.SKIP button 6

3 TAPE/◄I► (playback/transport direction change) button 5

4 ≙ (eject) button 5

5 SEEK/AMS button 6, 7, 11, 12

6 PRESET/DISC button 5, 6, 7, 12

7 SENS/BTM (sensitivity adjust/Best tuning memory function) button 7, 10

8 MUTE button 11

9 RELEASE (front panel release) button 4, 14

10 ⊕⊖ (volume/bass/treble/balance/fader control) button 5, 11

11 SEL (control mode select) button 5, 11

12 Reset button (located on the front side of the unit hidden by the front panel)
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

13 Display window

14 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the installation/Connections manual.

15 AF/TA (alternative frequency/traffic announcement) button 8, 9, 10

16 TUNER (radio on/band select) button 7

17 CD (disc play/CD changer select) button 12

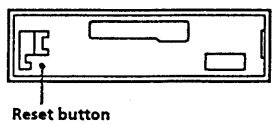
18 OFF button 4, 5

19 DSPL (display mode change/time set) button 5, 7, 8, 12

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ball-point pen.



Note
Pressing the reset button will erase all the memorized programme and memory functions.

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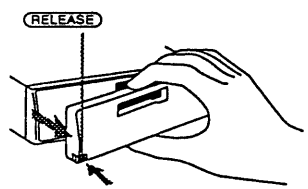
Detaching the front panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

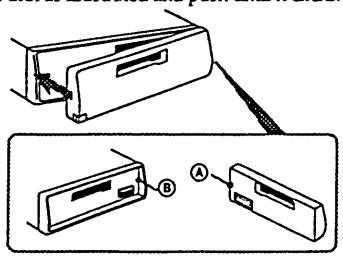
1 Press (OFF).
2 Press (RELEASE) to open up the front panel, and detach the panel by pulling it towards you.



Notes
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you press (RELEASE) to detach the panel while the unit is still turned on, the power will be automatically turned off in order to protect the speakers from being damaged.*

Attaching the front panel

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.



Notes
- *Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.*
- *Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.*
- *When you carry the front panel with you, put it in the supplied front panel case.*
- *Do not press hard or give excessive pressure to the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight, heat sources such as hot air ducts or leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.*

Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch is set to the Ⓐ position).

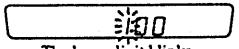
This section is extracted from instruction manual.

Setting the clock

The clock has a 24-hour digital indication.
For example, setting it to 10:08

1 Press (OFF) or (DSPL) during operation.

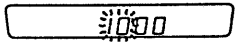
2 Press (DSPL) for more than two seconds.



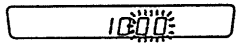
The hour digit blinks.

❶ Set the hour digits.

to go back to go forward



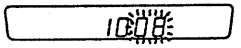
❷ Press (SEL) momentarily.



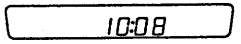
The minute digit blinks.

❸ Set the minute digits.

to go back to go forward



3 Press (DSPL) momentarily.



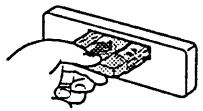
The clock activates.

Note
If the POWER SELECT switch on the bottom of the unit is set to the ❸ position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio.

Cassette Player

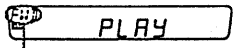
Listening to the tape

Insert the cassette.

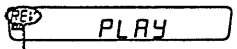


Playback will start automatically.

If the cassette is already inserted, press (TAPE) to start playback.



The side facing up is being played.



The side facing down is being played.

Tip
To change the tape transport direction, press (TAPE) during tape playback.

To	Press
Stop playback	(OFF)
Eject the cassette	⏏

Fast-winding the tape

During playback, press either side of (PRESET/DISC).

Rewind Fast-forward

To start playback during fast-forwarding or rewinding, press (TAPE).

Locating the beginning of the tracks — Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, press either side of (SEEK/AMS) momentary.

To locate the previous tracks To locate the succeeding the tracks

Note
The AMS function may not work when:
- *the blanks between tracks are shorter than 4 seconds*
- *there are noises*
- *there are long sections of low volume or quiet sections.*

Changing the displayed items

Each time you press (DSPL) momentarily during tape playback, the displayed item changes as follows:
"PLAY" ⟷ Clock

Playing the tape in various modes

Searching the desired track — Intro scan

Press ① during playback.
"INTRO" appears on the display.

The first 10 seconds of all the tracks are played.

When you find the desired track, press again. The unit returns to the normal playback mode.

Playing tracks repeatedly — Repeat play

Press ② during playback.
"REP" appears on the display.

When the currently played track is over, it will be played again from the beginning.

To cancel this mode, press again.

Switching to the radio during fast-winding the tape — Automatic Tuner Activation (ATA)

Press ⑤ during playback.
"ATA" appears on the display.

When fast-forwarding or rewinding with (PRESET/DISC), the tuner will turn on automatically.

Skipping blanks during tape playback — Blank skip

Press ⑥ during playback.
"BL.SKIP" appears on the display.

Blanks longer than eight seconds will be automatically skipped during tape playback.

Radio

Memorizing stations automatically

— Best Tuning Memory (BTM)

This function selects from the currently received band the stations with the strongest signals and memorizes them in order of their frequency.

PREVENTING ACCIDENTS!
When tuning in during driving, use the automatic tuning and the memory preset search function instead of the manual tuning.

1 Press TUNER repeatedly and select the band.
Each time you press TUNER, the band changes as follows:
FM1 → FM2 → FM3 → MW → LW

2 Press SENS/BTM for two seconds.

Notes
- *The unit will not store stations with weak band frequencies on the preset number buttons. If there are only a few stations received, some preset number buttons will remain empty.*
- *When there is a preset number indicated on the display, the unit will store stations on all preset number buttons from the one currently displayed.*

Memorizing only the desired Stations

Up to 6 stations on each band (FM1, FM2, FM3, MW and LW) can be stored on the preset number buttons in order of your choice. Therefore, 18 stations can be memorized on FM.
If you try to store another station on the same preset number button, the previously stored station will be erased.

1 Press TUNER repeatedly, and select the band.

2 Press SEEK/AMS to search for the station which you wish to store on the preset number button.

3 Press the desired preset number button (① to ⑥) for two seconds until a beep sounds.

The number of the pressed preset number button appears on the display.

Receiving the memorized stations

1 Press TUNER repeatedly, and select the band.

2 Press the preset number button (① to ⑥) momentarily on which the desired station is stored.

Tip
Press either side of PRESET/DISC momentarily to receive in order the stations stored in the memory (Preset Search Function).

If FM stereo reception is poor — Monaural mode

Press SENS/BTM momentarily until "MONO" lights up on the display.
The sound will improve, but it will become monaural. (The "ST" indication will disappear.)

Changing the displayed items

Each time you press DSPL, the display items change between frequency and time.

If you cannot tune in a preset station

Press either side of SEEK/AMS momentarily to search for the station (automatic tuning).
The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press SENS/BTM momentarily until "LCL" lights up on the display (local seek mode). Only the stations with relatively strong signals can be tuned in.

Tip
If you know the frequency, press and hold either side of SEEK/AMS until the desired station is received (manual tuning).

RDS

Overview of the RDS function

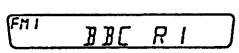
Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal. Your car stereo offers you a variety of services. Here are just a few: Re-tuning the same programme automatically, Listening to traffic announcements and Locating a station by programme type.

Notes
- *Depending on the country or region, not all of the RDS functions are available.*
- *RDS may not work properly if the signal strength is weak or if the station you are tuned in is not transmitting RDS data.*

Displaying the station name

The name of the station currently received lights up on the display.

Select an FM station.
When you tune in an FM station that transmits RDS data, the station name lights up on the display.



Note
The "" indication means that an RDS station is being received.*

Changing the displayed items

Each time you press DSPL, the displayed items change as follows:

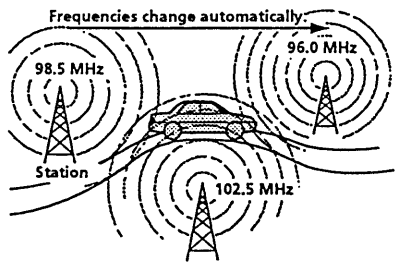
Frequency → Time → Station Name

Note
"NO NAME" lights up if the station received does not transmit RDS data.

Re-tuning the same programme automatically

—Alternative Frequencies (AF)

The Alternative Frequencies (AF) function automatically selects and re-tunes the station with the strongest signal in a network. By using this function, you can continuously listen to the same programme during a long-distance drive without having to re-tune the station manually.



1 Select an FM station.
2 Press AF/TA until "AF" lights up on the display.
The unit starts searching for an alternative station with a stronger signal in the same network.

Note
When there is no alternative station in the area, and you don't need to search for an alternative station, turn the AF function off by pressing AF/TA until "AF TA" disappears.

Changing the displayed items

Each time you press AF/TA, the displayed items change as follows:

AF → TA → AF TA* → Blank

* *Select this to turn on both AF and TA functions.*

Notes
- *"NO AF" and the station name flashes alternately, if the unit cannot find an alternative station in the network.*
- *If the station service name starts flashing after you've made the preset selection, it means that no alternative frequency is available and the unit cannot receive the PI (Programme Identification) data of the memorized station. Press SEEK/AMS while the station service name is flashing (for about eight seconds) so the unit starts searching for a station with the same PI data, but with another frequency ("PI SEEK" lights up and no sound is heard). If the unit still cannot find an alternative station, "NO PI" lights up and the unit goes back to the original preset station.*

Listening to a regional programme

The "REG" (regional on) function of this unit lets you stay tuned to a regional programme without being switched to another regional station. (Note that you must turn the AF function on.) The unit is factory preset to "REG" but if you want to turn off the function, do the following.

Press (AF/TA) for more than two seconds until "REG" disappears.
Note that turning the "REG" function off might cause the unit to switch to another regional station within the same network.

Note
This function does not work in the United Kingdom and in some other areas.

Local link function (United Kingdom only)

The Local Link function lets you select other local stations in the area, even though they are not stored in your presets.

1 Press a preset number button that has stored a local station.
2 Within five seconds, press again the preset number button of the local station.
3 Repeat this procedure until the desired local station is received.

Listening to traffic announcements

The Traffic Announcement (TA) and Traffic Programme (TP) data let you automatically tune in an FM station that is broadcasting traffic announcements even though you are listening to other programme sources.

Press (AF/TA) until "TA" or "AF TA" lights up on the display.
The unit starts searching for traffic information stations. "TP" lights up on the display when the unit finds a station broadcasting traffic announcements. When the traffic announcement starts, "TA" flashes, then flashing stops when the traffic announcement is over.

Tip
When the traffic announcement starts while you are listening to another programme source, the unit automatically switches to the announcement and goes back to the original source when the announcement is over.

Notes
- *"NO TP" flashes for five seconds if the received station doesn't broadcast traffic announcements. Then, the unit starts searching for a station that does broadcast traffic announcements.*
- *When the "EON" indication appears with "TP" on the display, the current station makes use of broadcast traffic announcements of other stations in the same network.*

To cancel the current traffic announcement

Press (AF/TA) momentarily.
To cancel all traffic announcements, turn off the function by pressing (AF/TA) until "AF" and "TA" disappears.

Presetting the volume of traffic announcements

You can preset the volume level of the traffic announcements beforehand, so you will not miss the announcement. When a traffic announcement starts, the volume will be automatically adjusted to the preset level.

1 Select the desired volume level.

2 Press (3) while holding down (SEL).
A beep sounds, and the setting is stored.

Receiving emergency announcements

If an emergency announcement comes in while you are listening to the radio, the programme will be automatically switched to the announcement. If you are listening to a source other than the radio, the emergency announcements will only be heard if you set AF or TA to on. The unit will then automatically switch to these announcements no matter what you are listening to at the time.

Presetting the RDS stations with AF and TA data

When you preset the RDS stations, the unit stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in the preset station. You can select different setting (AF, TA, or both) for individual preset stations, or the same setting for all preset stations.

Presetting the same setting for all preset stations

1 Select an FM band.

2 Press (AF/TA) repeatedly and select either "AF", "TA" or "AF TA" (for both AF and TA functions).
Note that turning the "AF TA" function off stores RDS stations as well as non-RDS FM stations.

3 Press (SENS/BTM) for two seconds.

Presetting different settings for each preset station

1 Select an FM band, and tune in the desired station.
2 Press (AF/TA) repeatedly and select either "AF", "TA" or "AF TA" (for both AF and TA functions).
3 Press the desired preset number button for two seconds until a beep sounds.
Repeat from step 1 for presetting other stations.

Tip
If you want to change the preset AF and/or TA setting after you tuned in the preset station, you can do so by turning on/off the AF or TA function.

Locating a station by programme type

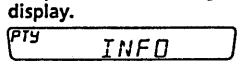
You can locate the station you want by selecting one of the programme type shown below.

Note
In the countries or regions where EON data is not transmitted, you can use this function only for the stations you have tuned in once.

Programme types	Display
News	NEWS
Current Affairs	AFFAIRS
Information	INFO
Sports	SPORT
Education	EDUCATE
Drama	DRAMA
Culture	CULTURE
Science	SCIENCE
Varied	VARIED
Popular Music	POP M
Rock Music	ROCK M
Middle of the Road Music	M.O.R. M
Light Classical	LIGHT M
Classical	CLASSICS
Other Music Type	OTHER M
Not specified	NONE

Note
You cannot use this function in some countries where no PTY (Programme Type selection) data is available.

1 Press (PTY/LOUD) momentarily during FM reception until "PTY" lights up on the display.



The current programme type name appears if the station is transmitting the PTY data. "- - - - -" appears if the received station is not an RDS station or if the RDS data has not been received.

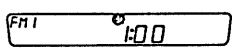
2 Press (PTY/LOUD) repeatedly until the desired programme type appears.
The programme types appear in the order as shown in the above table. Note that you cannot select "NONE" (Not specified) for searching.

3 Press either side of (SEEK/AMS).
The unit starts searching for a station broadcasting the selected programme type. When the unit finds the programme, the programme type appears again for five seconds.
"NO" and the programme type appear alternately for five seconds if the unit cannot find the programme type and it returns to the previous station.

Setting the clock automatically

By receiving CT (Clock Time) data, the clock of this unit can be set automatically.

During FM reception, press (2) while pressing (SEL).
"CT" will be displayed, and the clock will be set.



To cancel the CT function

Repeat the above procedure.

Notes
- *The CT function may not work even though an RDS station is being received.*
- *The time set by the CT function may not be exact.*

Other Functions

Adjusting the sound characteristics

1 Select the item you want to adjust by pressing (SEL) repeatedly.
VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)

2 Adjust the selected item by pressing either ⊕ or ⊖.

Adjust within three seconds after selecting. (After three seconds the button will again serve as volume control button.)

Muting the sound

Press (MUTE).
The "MUTE" indication flashes.

To restore the previous volume level, press again.

Changing the sound and display settings

Enjoying bass and treble even at Low Volume — Loudness

Bass and treble will be reinforced.

Press (PTY/LOUD) for two seconds.
"LOUD" will appear on the display.

To cancel, press these buttons again.

Muting the beep tone

Press (6) while pressing (SEL).
To obtain the beep tone again, press these buttons once more.

EN EN

RDS/Other Functions

With the Optional Equipment

CD Changer

You can control two CD changers.

Playing a CD

Press (CD) and select the changer.
CD playback starts.

When a CD changer is connected, all the tracks play from the beginning.

Each time you press (DSPL) momentarily during CD playback, the displayed item changes as follows:

Elapsed playback time ⟷ Clock

Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) the number of times you wish to skip the tracks.

To locate the previous tracks — To locate the succeeding tracks

Locating a specific point in a track — Manual Search

During playback, press and hold either side of (SEEK/AMS). Release the button when you have found the desired part.

To reverse — To forward

Switching to other discs

During playback, press either side of (PRESET/DISC) momentarily.

To return to the previous disc — To advance to the next disc

Scanning the tracks — Intro scan

The first 10 seconds of all the tracks on the currently selected disc are played in order. After the first disc is over, the next disc is played.

Press (1) during playback.
"INTRO" appears on the display.

When you find the desired track, press again. The unit returns to the normal CD playback mode.

Playing tracks repeatedly — Repeat play

To repeat a track

Press (2) repeatedly during CD playback until "REP 1" is displayed.

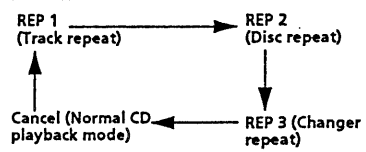
To repeat a disc

Press (2) repeatedly during CD playback until "REP 2" is displayed.

To repeat all the discs in both changers

Press (2) repeatedly during CD playback until "REP 3" is displayed.

Each time you press (2) the display changes as follows:



Playing tracks in random order — Shuffle play

To play the current disc in a random order

Press (3) repeatedly during CD playback until "SHUF 1" is displayed.

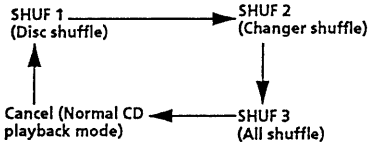
To play all the discs in the changer in a random order

Press ③ repeatedly during CD playback until "SHUF 2" is displayed.

To play all the discs in both changers in random order

Press ③ repeatedly during CD playback until "SHUF 3" is displayed.

Each time you press ③ the display changes as follows:



If you press ① during shuffle play, the first 10 seconds of all tracks will be played in random order.

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Connect the power connecting cord ⑤ to the unit and speakers before connecting it to the auxiliary power connector.
- Run all ground wires to a common ground point.

If Your Car has No Accessory Position on the Ignition Key Switch — POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ⓪ position, then press the reset button. The illumination is reset to stay off while the unit is not being played.

Note

The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ⓪ position.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Conecte el cable de conexión de alimentación ⑤ a la unidad y a los altavoces antes de conectarlo al conector de alimnentación auxiliar.
- Conecte todos los conductores de puesta a masa a un punto común.

Si el automóvil no dispone de posición para accesorios en la llave de encendido — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en reproducción. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil si éste no dispone de posición para accesorios en la llave de encendido. Para evitar esto, ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ⓪ y, después, presione el botón de reposición. La iluminación estará desactivada cuando la unidad no se encuentre en reproducción.

Nota

La alarma de precaución del panel frontal no se activará cuando el selector POWER SELECT se encuentre en la posición ⓪.

Anslutning

Sökerhetsföreskrifter

- Denna bilstereo är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri.
- Anslut strömkabeln ⑤ till enheten och högtalarna innan du ansluter den till den yttre strömanslutning.
- Dra samtliga jordledningar till en och samma jordningspunkt.

Montera bilstereon i en bil vars tändlås inte har något strömläge — Omkopplaren POWER SELECT

Innan bilstereon levererades från fabriken ställdes belysningen i teckenfönstret in så att den lyser också när bilstereon inte används. Detta kan emellertid orsaka urladdning av batteriet när du använder bilstereon i en bil, vars tändlås saknar läget ACC (strömläge). Skjut omkopplaren POWER SELECT på bilstereons undersida till läge ⓪, och tryck sedan på återställningsknappen för att undvika att bilbatteriet laddas ur. Nu lyser inte längre belysningen i teckenfönstret när bilstereon inte används.

Observera

Varningssignalen, som varnar om du inte har tagit loss frontpanelen, ljuder inte när omkopplaren POWER SELECT står i läge ⓪.

Connexions

Advertência

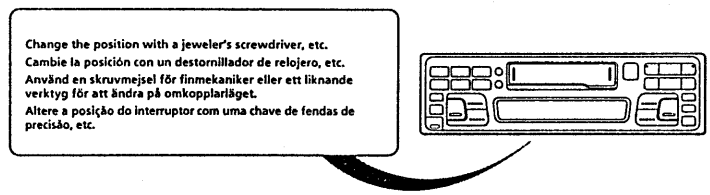
- Este aparelho foi projectado para funcionar somente com corrente contínua de 12 V com massa negativa.
- Ligue o cabo de alimentação de corrente ⑤ ao aparelho e aos alifalantes antes de o ligar ao conector de corrente auxiliar.
- Ligue todos os fios de terra num ponto de massa comum.

Se o seu automóvel não estiver equipado com uma chave de ignição com posição acessórios — Interruptor POWER SELECT

A iluminação do painel frontal é regulada na fábrica para se manter acesa, mesmo quando o aparelho não estiver ligado. No entanto, esta regulação pode provocar a descarga da bateria se o aparelho for utilizado em automóveis sem chave de ignição com posição acessórios. Para evitar a descarga da bateria, regule o interruptor POWER SELECT, situado na base do aparelho, para a posição ⓪. Em seguida, carregue no botão de reinicialização. A iluminação é regulada para ficar apagada enquanto o aparelho estiver desligado.

Nota

O alarme de advertência do painel frontal não é activado quando o interruptor POWER SELECT estiver regulado para a posição ⓪.


Change the position with a jeweler's screwdriver, etc.
Cambie la posición con un destornillador de relojero, etc.
Använd en skruvmejsel för finmekaniker eller ett liknande verktyg för att ändra på omkopplarläget.
Altere a posição do interruptor com uma chave de fendas de precisão, etc.

Reset Button

When the installation and connections are over, be sure to press the reset button with a ballpoint pen etc.

Botón de reposición

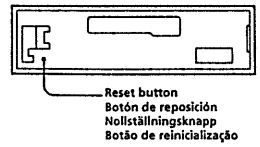
Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.

Nollställningsknappen

Kom ihåg att använda en penna eller något annat spetsigt föremål för att trycka på nollställningsknappen när anslutningen och monteringen är klar.

Botão de reinicialização

Quando terminar a instalação e as ligações, não se esqueça de carregar no botão de reinicialização com a ponta de uma caneta, etc.



Note on the control leads

The power antenna control lead (blue) supplies + 12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency) or the TA (Traffic Announcement) Function.

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Warning

If you have a power antenna without a relay box, connecting this unit with the supplied power connecting cord ⑤ may damage the antenna.

Nota sobre conductores de control

El conductor de control de la antena motorizada (azul) suministrará +12 V CC cuando conecte la alimentación del sintonizador o cuando active la función de activación automática del sintonizador (ATA), frecuencia alternativa (AF) o la de anuncios de tráfico (TA).

Conexión para protección de la memoria

Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición OFF.

Notas sobre la conexión de los altavoces

- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

Advertencia

Si dispone de una antena motorizada sin dispositivo de relé, la conexión de esta unidad con el cable de conexión de alimentación ⑤ suministrado puede dañar la antena.

Att observera angående de olika styrkablarna

Motorantennens styrkabel (blå) leder +12 volts likström när bilradion slås på eller när alternativa frekvenser (AF) eller trafikmeddelanden (TA) kopplas in.

Anslutning för minnesstöd

När du anslutit den gula, ingående strömkabeln försörjs minneskretsen med ström hela tiden, även när tändläset slås ifrån.

Att observera angående högtalarnas anslutning

- *Slå av bilstereon innan du ansluter högtalarna.*
- *Anslut endast högtalare, vars impedans varierar från 4 till 8 ohm och som har tillräcklig effekthanteringskapacitet för att skydda högtalarna mot skador.*
- *Anslut inte något av högtalaruttagen till bilens chassi. Anslut inte heller uttagen på höger högtalare till uttagen på vänster högtalare.*
- *Anslut inte högtalarna parallellt.*
- *Anslut inte aktiva högtalare (med inbyggda slutsteg) till bilstereons högtalaruttag, eftersom de kan skada de aktiva högtalarna. Var noga med att bara ansluta passiva högtalare till dessa uttag.*

Varning

Om du har en motorantenn utan reläbosa kan antennen skadas om du ansluter enheten med den medföljande strömkabeln ⑤.

Nota sobre os fios de controlo

O fio de controlo da antena eléctrica (azul) fornece +12 V CC quando da ligação do sintonizador ou da activação da função ATA (Activação automática do sintonizador), AF (Frequência Alternativa) ou TA (Boletins de Tráfego).

Ligação para alimentação contínua da memória

Quando, o fio amarelo de entrada de alimentação for ligado, os circuitos de memória ficarão com alimentação contínua, mesmo se a chave de ignição estiver desligada.

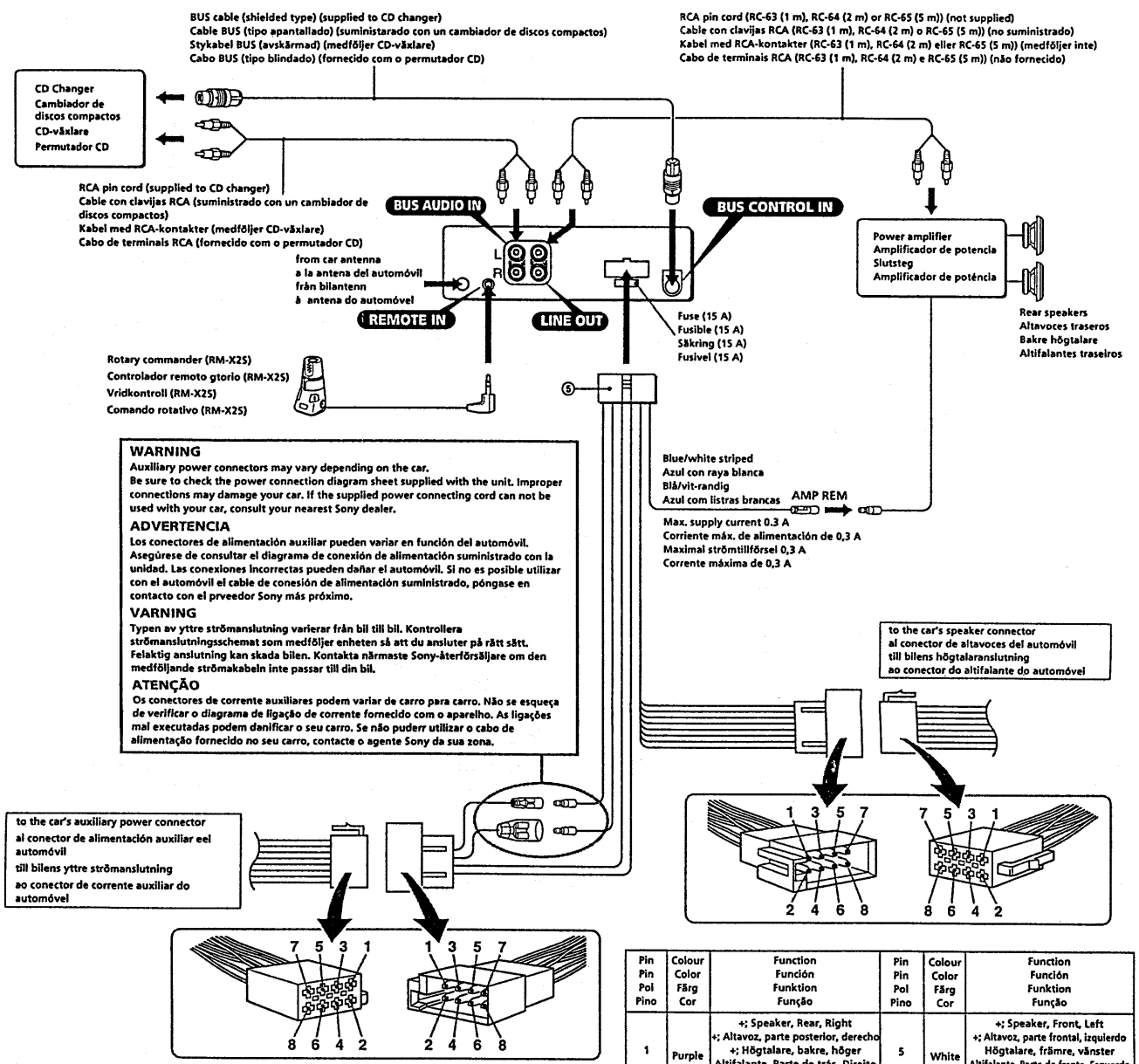
Notas sobre a ligação dos altifalantes

- *Antes de ligar os altifalantes, desligue o aparelho.*
- *Utilize altifalantes com impedância de 4 a 8 ohm, e com capacidade admissível de potência adequada. Caso contrário, os altifalantes poderão sofrer avarias.*
- *Não ligue os terminais do sistema de altifalantes ao chassis do automóvel, e não ligue os terminais do altifalante direito aos terminais do altifalante esquerdo.*
- *Não tente ligar os altifalantes em paralelo.*
- *Não ligue nenhum sistema de altifalantes activos (com amplificadores incorporados) aos terminais dos altifalantes do aparelho. Caso o faça, poderá avariar o sistema de altifalantes activos. Portanto, não se esqueça de ligar altifalantes passivos a estes terminais.*

Atenção

Se a antena eléctrica não tiver uma caixa de relé, o facto de ligar este aparelho com o cabo de alimentação ⑤ fornecido, pode provocar danos na antena.

Connections of Example — Ejemplo de conexiones — Anslutningarna enligt exemplet — Exemplo de ligações


BUS cable (shielded type) (supplied to CD changer)
Cable BUS (tipo apantallado) (suministrado con un cambiador de discos compactos)
Stykabel BUS (avskärmad) (medföljer CD-växlare)
Cabo BUS (tipo blindado) (fornecido com o permutador CD)
RCA pin cord (RC-63 (1 m), RC-64 (2 m) or RC-65 (5 m)) (not supplied)
Cable con clavijas RCA (RC-63 (1 m), RC-64 (2 m) o RC-65 (5 m)) (no suministrado)
Kabel med RCA-kontakter (RC-63 (1 m), RC-64 (2 m) eller RC-65 (5 m)) (medföljer inte)
Cabo de terminais RCA (RC-63 (1 m), RC-64 (2 m) e RC-65 (5 m)) (não fornecido)
CD Changer
Cambiador de discos compactos
CD-växlare
Permutador CD
RCA pin cord (supplied to CD changer)
Cable con clavijas RCA (suministrado con un cambiador de discos compactos)
Kabel med RCA-kontakter (medföljer CD-växlare)
Cabo de terminais RCA (fornecido com o permutador CD)
BUS AUDIO IN
BUS CONTROL IN
from car antenna
a la antena del automóvil
från bilantenn
à antena do automóvel
REMOTE IN
LINE OUT
Fuse (15 A)
Fusible (15 A)
Säkring (15 A)
Fusível (15 A)
Power amplifier
Amplificador de potencia
Slutsteg
Amplificador de potência
Rear speakers
Altavoces traseros
Bakre högtalare
Altifalantes traseiros
Rotary commander (RM-X2S)
Controlador remoto gtorio (RM-X2S)
Vridkontroll (RM-X2S)
Comando rotativo (RM-X2S)
Blue/white striped
Azul con raya blanca
Blå/vit-randig
Azul com listras brancas
AMP REM
Max. supply current 0.3 A
Corriente máx. de alimentación de 0,3 A
Maximal strömtillförsel 0,3 A
Corrente máxima de 0,3 A
to the car's speaker connector
al conector de altavoces del automóvil
till bilens högtalaranslutning
ao conector do altifalante do automóvel
to the car's auxiliary power connector
al conector de alimentación auxiliar eel automóvil
till bilens yttre strömanslutning
ao conector de corrente auxiliar do automóvel
1 3 5 7
2 4 6 8
7 5 3 1
8 6 4 2

WARNING
Auxiliary power connectors may vary depending on the car.
Be sure to check the power connection diagram sheet supplied with the unit. Improper connections may damage your car. If the supplied power connecting cord can not be used with your car, consult your nearest Sony dealer.

ADVERTENCIA
Los conectores de alimentación auxiliar pueden variar en función del automóvil.
Asegúrese de consultar el diagrama de conexión de alimentación suministrado con la unidad. Las conexiones incorrectas pueden dañar el automóvil. Si no es posible utilizar con el automóvil el cable de conesión de alimentación suministrado, póngase en contacto con el prveedor Sony más próximo.

VARNING
Typen av yttre strömanslutning varierar från bil till bil. Kontrollera strömanslutningsschemat som medföljer enheten så att du ansluter på rätt sätt. Felaktig anslutning kan skada bilen. Kontakta närmaste Sony-återförsäljare om den medföljande strömkabeln inte passar till din bil.

ATENÇÃO
Os conectores de corrente auxiliares podem variar de carro para carro. Não se esqueça de verificar o diagrama de ligação de corrente fornecido com o aparelho. As ligações mal executadas podem danificar o seu carro. Se não puderr utilizar o cabo de alimentação fornecido no seu carro, contacte o agente Sony da sua zona.

Pin Pin Pol Pino	Colour Color Färg Cor	Function Función Funktion Função	Pin Pin Pol Pino	Colour Color Färg Cor	Function Función Funktion Função
4	Yellow Amarillo Gul Amarelo	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação ininterrupta de corrente	7	Red Rojo Röd Vermelho	switched power supply suministro de alimentación switchad strömförsörjning fornecimento comutado de corrente
5	Blue Azul Blå Azul	power antenna control antena eléctrica elektrisk seriell antena eléctrica	8	Black Negro Svart Preto	ground toma de tierra jord Terra

Positions 1, 2, 3 and 6 do not have pins.
Las posiciones 1, 2, 3 y 6 no disponen de pines.
Positionerna 1, 2, 3 och 6 saknar stift.
As posições 1, 2, 3 e 6 não têm pinos.

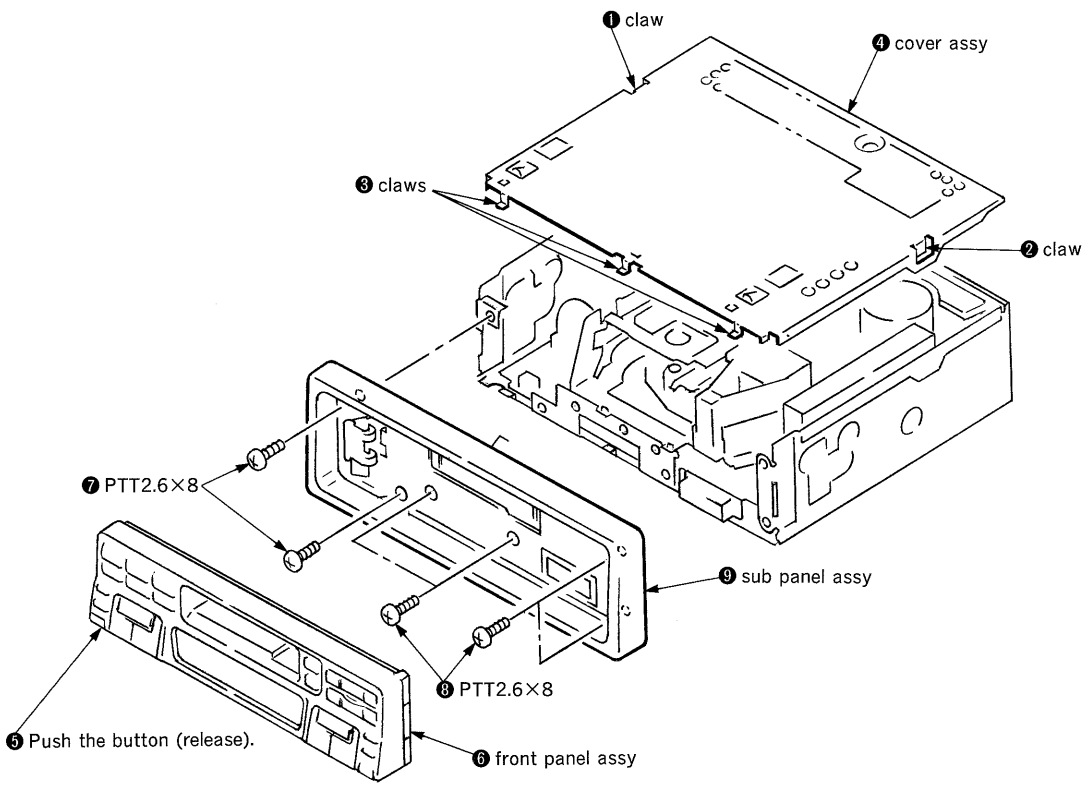
Pin Pin Pol Pino	Colour Color Färg Cor	Function Función Funktion Função	Pin Pin Pol Pino	Colour Color Färg Cor	Function Función Funktion Função
1	Purple Purpura	+; Speaker, Rear, Right +; Altavoz, parte posterior, derecho +; Högtalare, bakre, höger Altifalante, Parte de trás, Direito	5	White Blanco Vit Branco	+; Speaker, Front, Left +; Altavoz, parte frontal, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
2	Morklila Violeta	–; Speaker, Rear, Right –; Altavoz, parte posterior, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	6		–; Speaker, Front, Left –; Altavoz, parte frontal, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
3	Gray Gris Grå Cinza	+; Speaker, Front, Right +; Altavoz, parte frontal, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	7	Green Verde Grön Verde	+; Speaker, Rear, Left +; Altavoz, parte posterior, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo
4		–; Speaker, Front, Right –; Altavoz, parte frontal, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	8		–; Speaker, Rear, Left –; Altavoz, parte posterior, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo

Negative polarity positions 2, 4, 6, and 8 have striped cords.
Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con raya.
De negativa polpositionerna 2, 4, 6 och 8 har randiga kablar.
As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos às riscas.

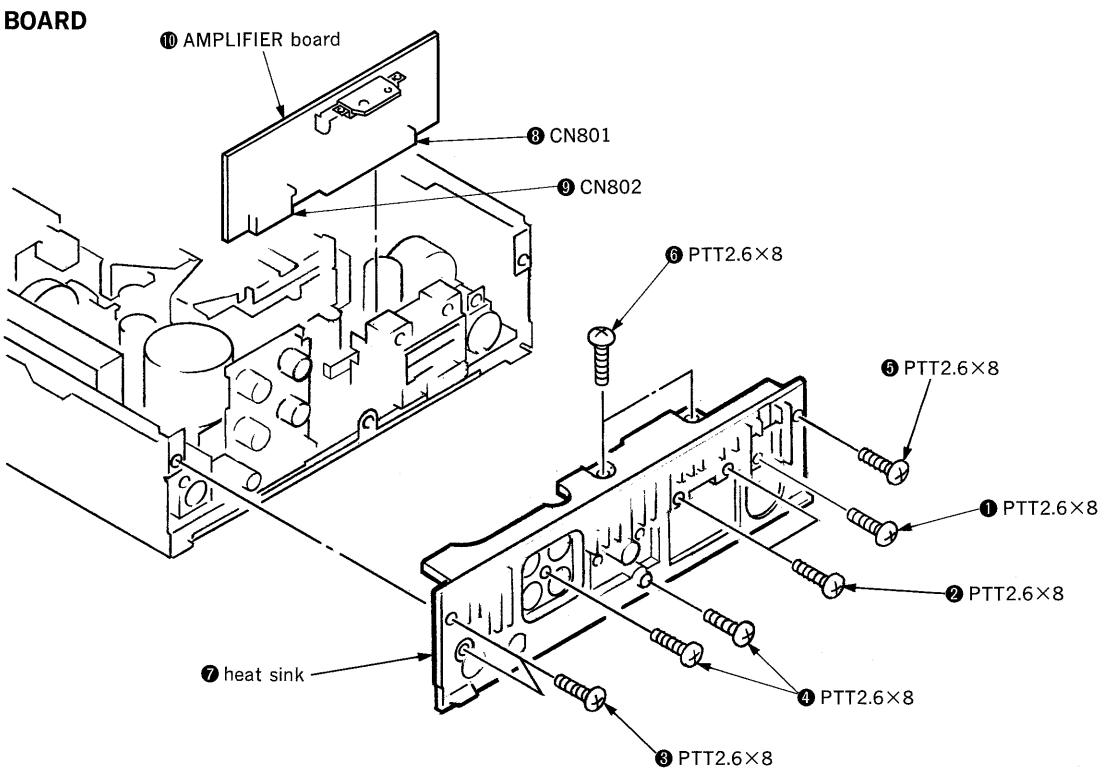
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

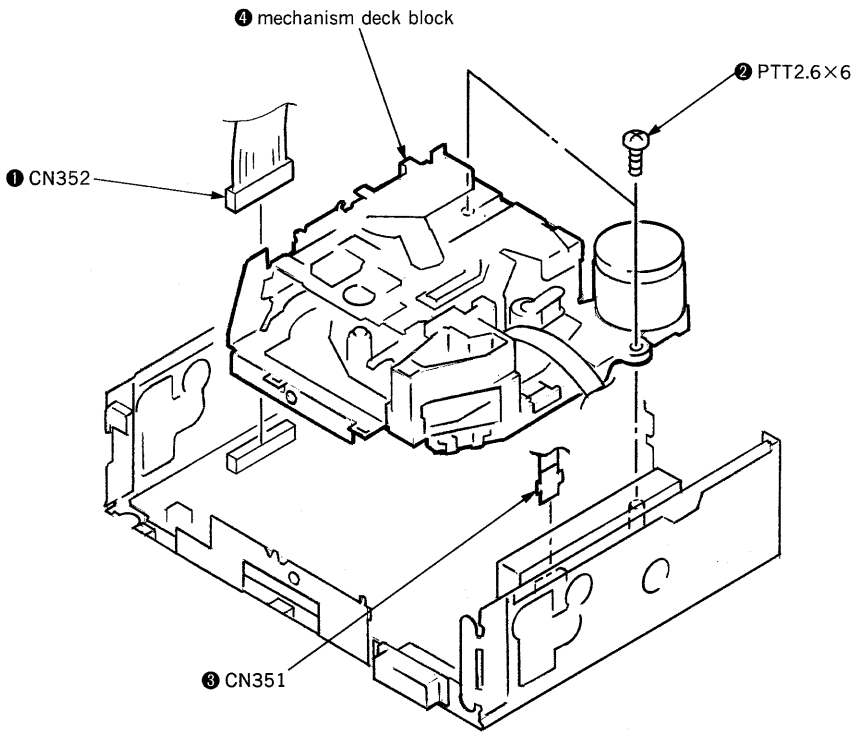
2-1. SUB PANEL ASSY



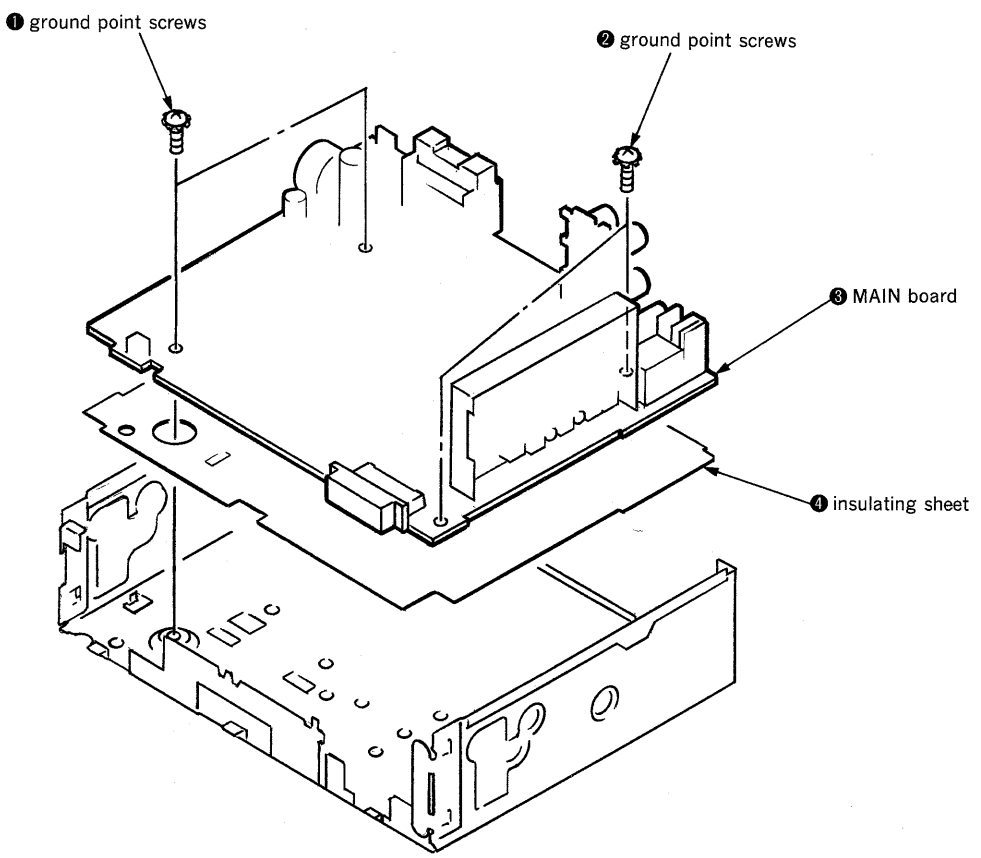
2-2. AMPLIFIER BOARD



2-3. MECHANISM DECK BLOCK



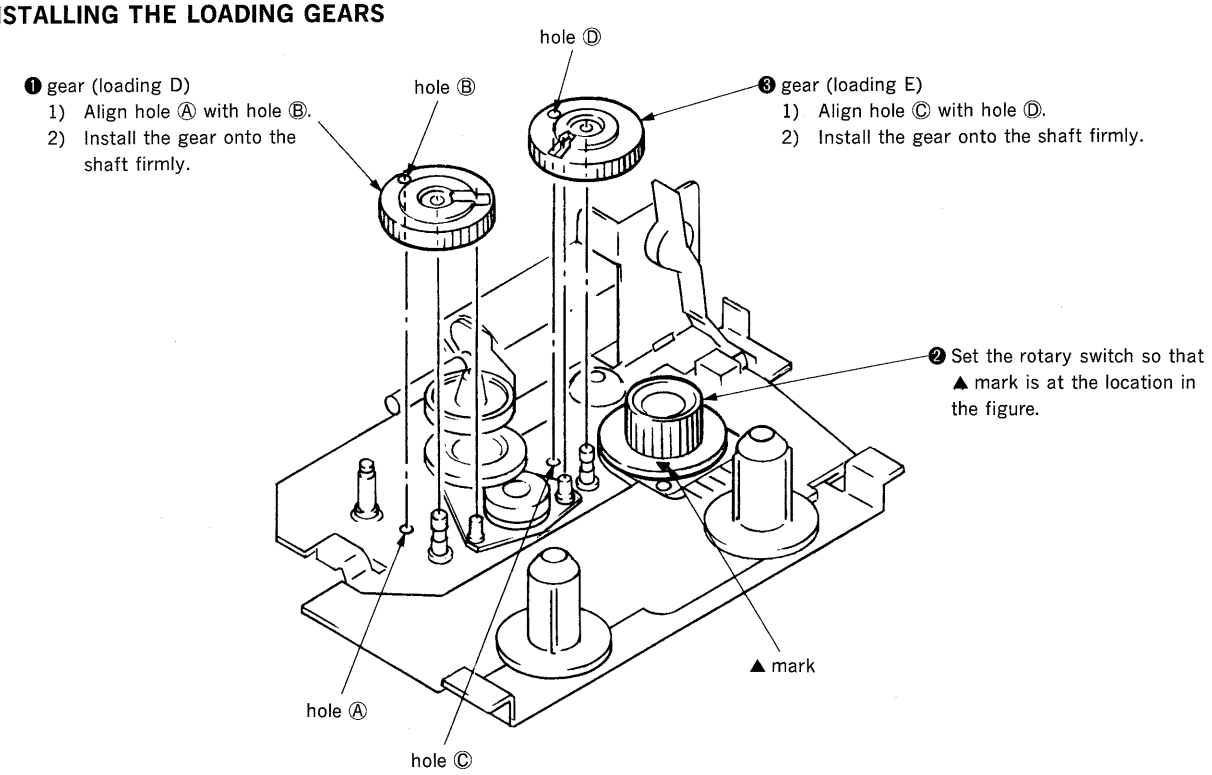
2-4. MAIN BOARD



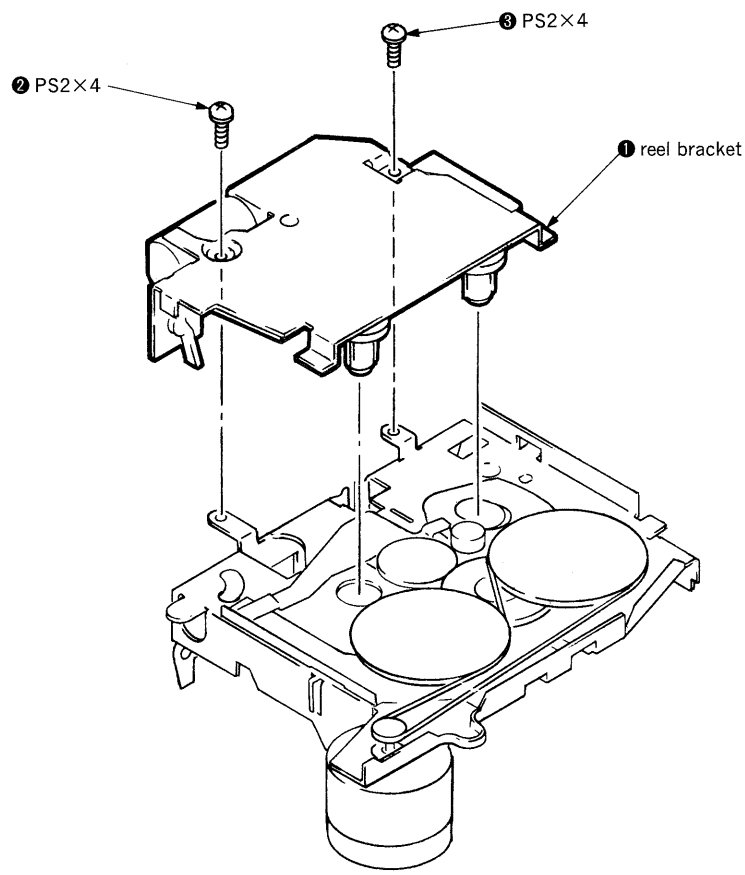
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note : Follow the assembly procedure in the numerical order given.

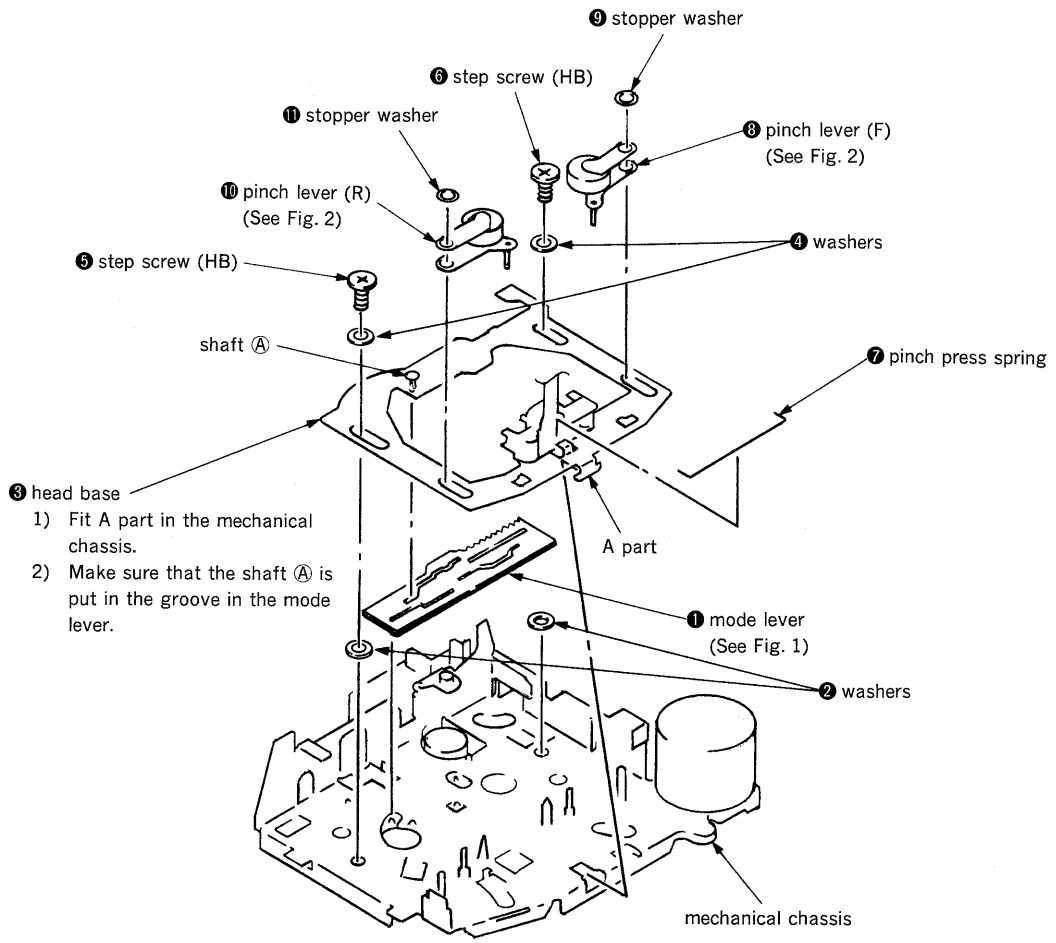
3-1. INSTALLING THE LOADING GEARS


❶ gear (loading D)
1) Align hole Ⓐ with hole Ⓑ.
2) Install the gear onto the shaft firmly.
hole Ⓑ
hole Ⓓ
❸ gear (loading E)
1) Align hole Ⓒ with hole Ⓓ.
2) Install the gear onto the shaft firmly.
❷ Set the rotary switch so that ▲ mark is at the location in the figure.
▲ mark
hole Ⓐ
hole Ⓒ

3-2. INSTALLING THE REEL BRACKET



3-3. INSTALLING THE MODE LEVER AND PINCH LEVERS



1) Align • mark on the rotary switch with hole on the mode lever.
2) Make sure that the two shafts and three projections are located as shown below.

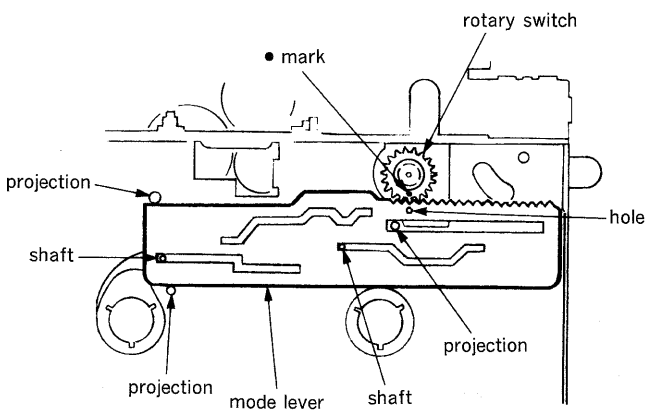


Fig. 1

1) Put the shafts of the pinch levers in the pinch press spring on its head side.

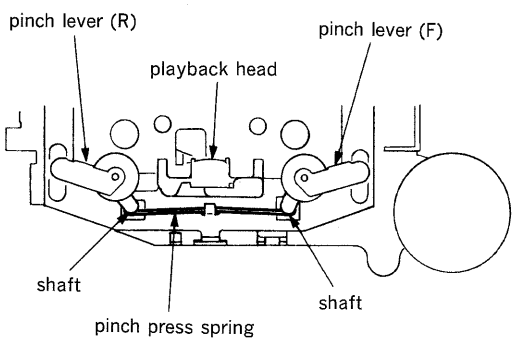


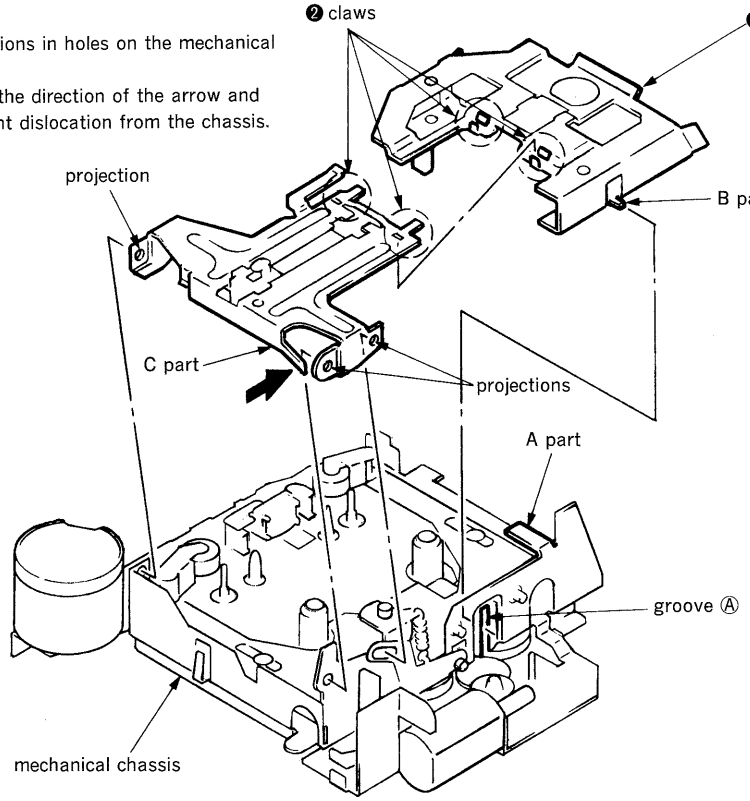
Fig. 2

3-4. INSTALLING THE CASSETTE HOUSING

❸ housing hanger
1) Fit three projections in holes on the mechanical chassis.
2) Bend C part in the direction of the arrow and fasten to prevent dislocation from the chassis.

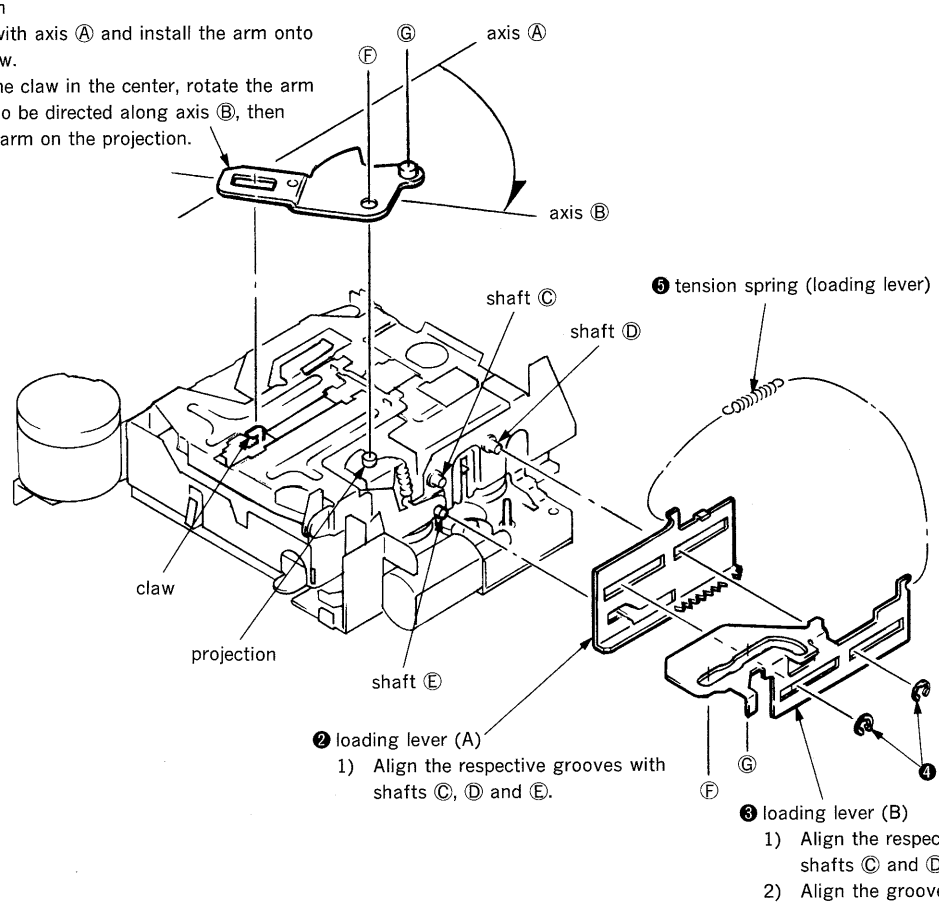
❷ claws

❶ cassette housing
1) Put the cassette housing under A part.
2) Fit B part in groove Ⓐ.

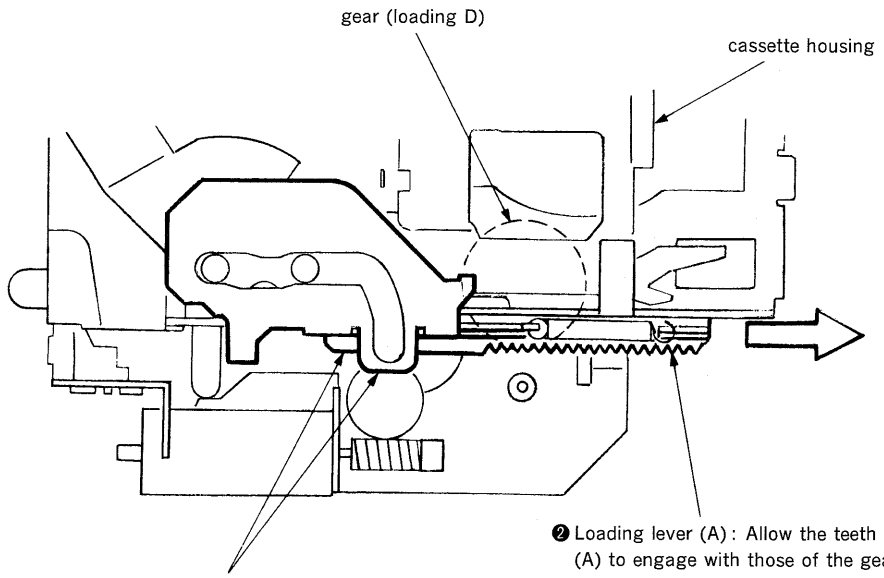


3-5. INSTALLING THE LOADING LEVER

❶ suction arm
1) Align with axis Ⓐ and install the arm onto the claw.
2) With the claw in the center, rotate the arm so as to be directed along axis Ⓑ, then fit the arm on the projection.



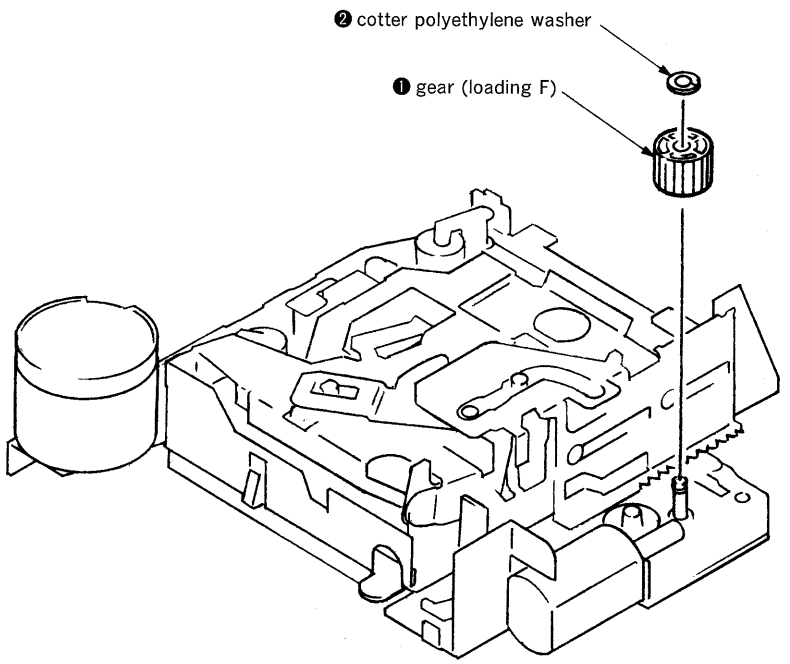
3-6. POSITIONING THE LOADING LEVERS



❶ Loading levers (A) and (B) : Move loading levers (A) and (B) in the direction of the arrow.
(The cassette housing is put down fully at this time.)

❷ Loading lever (A) : Allow the teeth of loading lever (A) to engage with those of the gear (loading D).
(Adjustment method : Retract loading lever (A) by 0.2 to 0.5mm in the opposite direction of the arrow.)

3-7. INSTALLING THE GEAR (LOADING F)



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head　　Pinch roller
   Idler　　Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	30−65g•cm (0.42−0.90 oz•inch)
FWD Back Tension		0.5−4.5g•cm (0.01−0.06 oz•inch)
REV	CQ-102RC	30−65g•cm (0.42−0.90 oz•inch)
REV Back Tension		0.5−4.5g•cm (0.01−0.06 oz•inch)
FF, REW	CQ-201B	60−200g•cm (0.83−2.78 oz•inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 90g (more than 3.18 oz)
REV	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test Mode>

1. Push the "OFF" button.

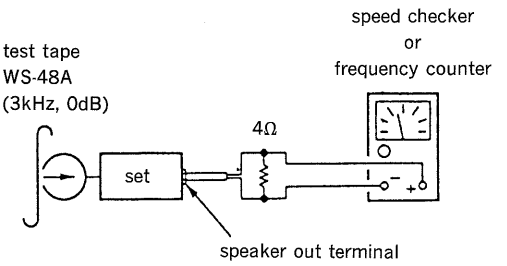
See the adjustment location from on page 21 for the adjustment.

DECK SECTION　**0dB=0.775V**

Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.



Specification: Constant speed

Speed checker	Frequency counter
−1.5 to +2.5%	2,955 to 3,075Hz

Adjustment Location: See page 21.

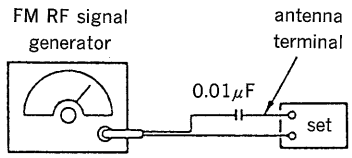
TUNER SECTION | **0dB=1μV**

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting :

TUNER button : FM

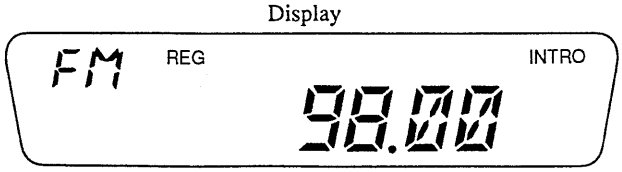


Carrier frequency : 98.00MHz
Output level : 22dB (12.6μV)
Mode : mono
Modulation : 1kHz, 22.5kHz deviation (30%)

Procedure :

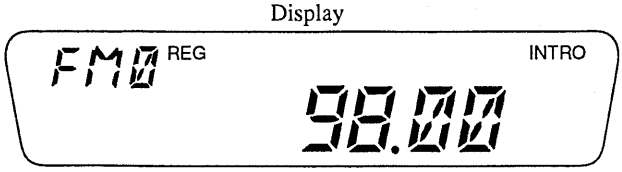
1. Set to the test mode. (See page 17.)
2. Push the TUNER button and set to FM.

Display



3. Adjust with the volume RV2 on TU1 so that the "FM" indication turns to "FM0" indication on the display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display

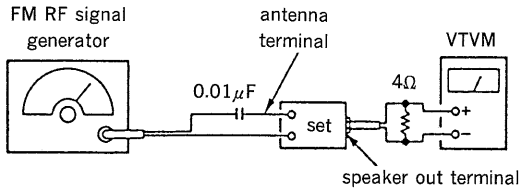


Adjustment Location : See page 21.

FM Noise Focus Adjustment

Setting :

TUNER button : FM



Carrier frequency : 98.00MHz
Output level : 60dB (1mV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

Procedure :

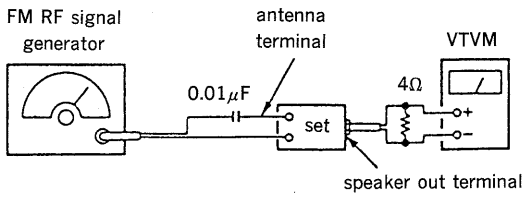
1. Tune the 98.00MHz.
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV3 on TU1 so that the output level is (A)−32dB then signal generator input set to −20dB.

Adjustment Location : See page 21.

FM Stereo Separation Adjustment

Setting :

TUNER button : FM



Carrier frequency : 98.00MHz
Output level : 70dB (3.2mV)
Mode : stereo
Modulation : main : 1kHz, 20kHz deviation (26.6%)
sub : 1kHz, 20kHz deviation (26.6%)
19kHz pilot : 7.5kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation : Ⓐ−Ⓑ
R-CH Stereo separation : Ⓒ−Ⓓ
The separations of both channels should be equal.

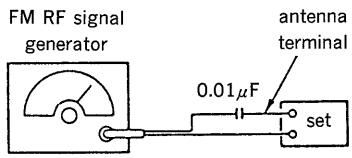
Specification : Separation more than 26dB

Adjustment Location : See page 21.

FM Signal Meter Adjustment

Setting :

TUNER button : FM

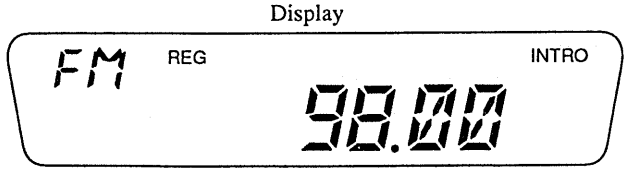


Carrier frequency : 98.00MHz
Output level : 35dB (56.2μV)
Mode : mono
Modulation : no modulation

Procedure :

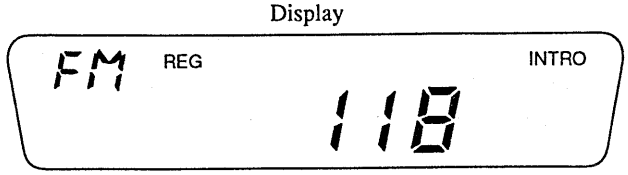
1. Set to the test mode. (See page 17.)
2. Push the [TUNER] button and set to FM.

Display



3. Push the preset [6] button.
4. Adjust RV1 so that the display indication is "118".

Display



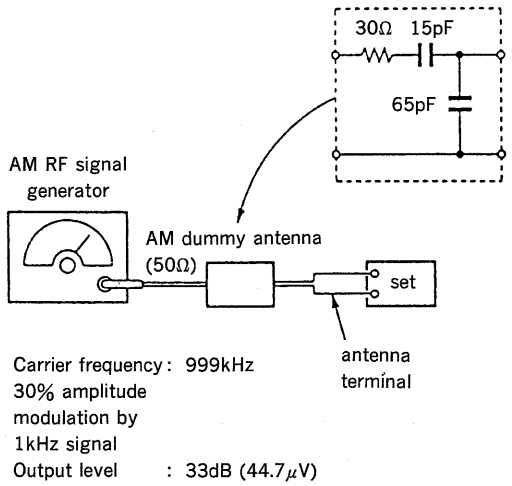
Specification : Display indication : 116 to 120

Adjustment Location : See page 21.

MW Auto Scan/Stop Level Adjustment

Setting :

TUNER button : MW



Carrier frequency : 999kHz
30% amplitude modulation by 1kHz signal
Output level : 33dB (44.7μV)

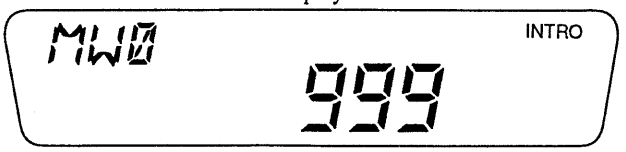
Procedure :

1. Set to the test mode. (See page 17.)
2. Push the [TUNER] button and set to MW.

Display

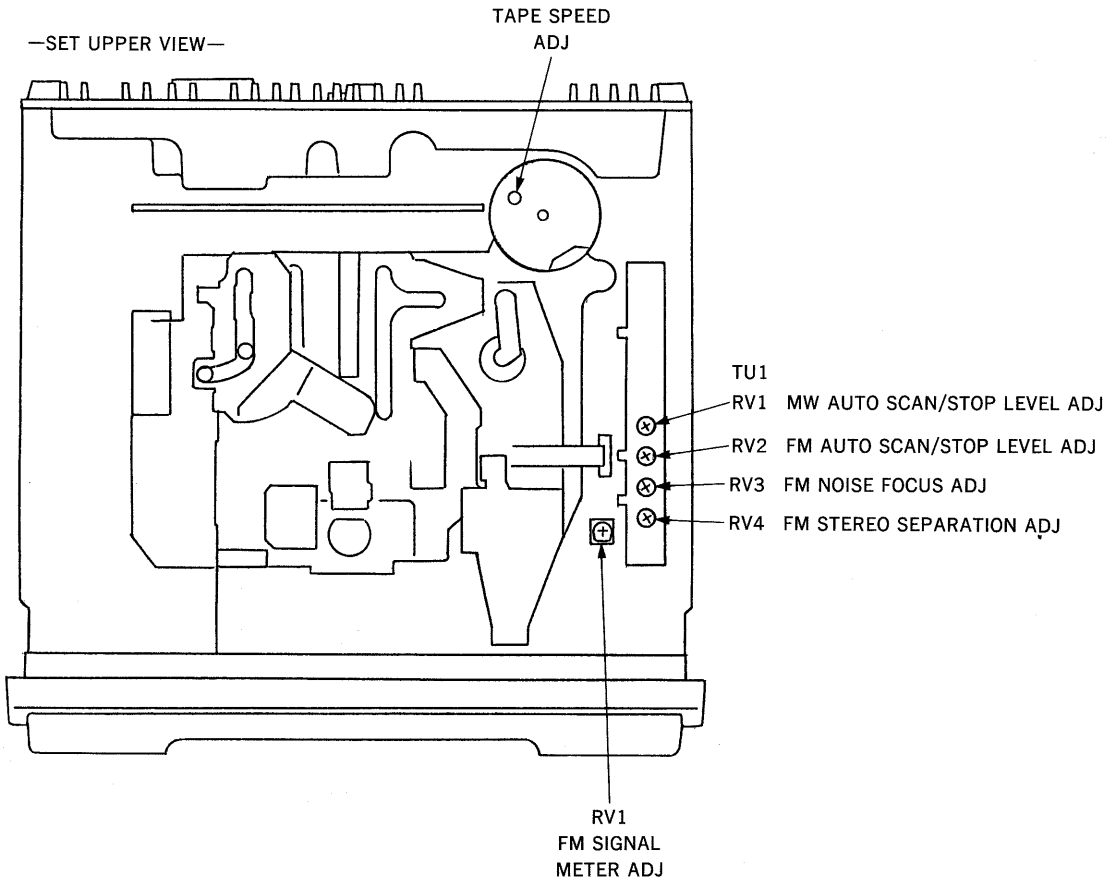
3. Adjust with the volume RV1 on TU1 so that the "MW" indication turns to "MW0" indication on the display window.
   But, in case of already indicated "MW0", turn the RV1 so that put out light "0" indication and adjustment.

Display



Adjustment Location : See page 21.

Adjustment Location :



SECTION 6
DIAGRAMS

6-1. IC PIN DESCRIPTION

• IC501 MN1884820S3X (System Control)

Pin No.	Pin Name	I/O	Pin Description
1	TUNMUT	O	TUNER MUTE output terminal
2	AMPON	O	Power amplifier power control output terminal
3	ILLON	O	Illumination power control output terminal
4	PW ON	O	System power control output terminal
5	$\overline{\text{AMPMUT}}$	O	Power amplifier mute control output terminal
6	RCIN1	I	Rotary Commander Shift input terminal
7	VDD	—	Power terminal
8	X IN	I	Connection oscillator 8MHz cera-lock
9	X OUT	O	Connection oscillator 8MHz cera-lock
10	GND	—	GND
11	XT IN	I	32.768kHz crystal connection
12	XT OUT	O	32.768kHz crystal connection
13	EX2	—	Connect to GND.
14	$\overline{\text{RESET}}$	—	Reset input terminal. "L" for Reset.
15	RDSCKI	I	RDS-CLK input terminal
16	BU IN	I	BACK-UP detection input terminal
17	KEYACK	I	Key input acknowledge terminal
18	VOLSO	O	Electric volume serial data output terminal
19	VOLCKO	O	Electric volume serial clock output terminal
20	VOLCE	O	Electric volume serial chip enable output terminal
21	TAPEMUT	O	AUDIO signal select control output terminal
22	LMLOD	O	LOADING MOTOR control output terminal (LOADING direction)
23	LMEJ	O	LOADING MOTOR control output terminal (EJECT direction)
24	$\overline{\text{AMSON}}$	O	AMS control output terminal
25	$\overline{\text{N}}$ ROUT	O	FORWARD/REVERSE detection output terminal
26	$\overline{\text{AMSIN}}$	I	Music with/without detection input terminal at AMS.
27	PLLSO	O	PLL DATA output terminal
28	PLLCKO	O	PLL CLK output terminal
29	PLLCE	O	PLL CE output terminal
30	RDSSI	I	RDS-DATA input terminal
31	$\overline{\text{AD ON}}$	O	AD port power control output terminal
32	DOLON	I/O	DOLBY control input/output terminal
33	MTLON	I/O	METAL control input/output terminal
34	CMON	O	TAPE capstan motor control signal output terminal
35	TAPON	O	TAPE power control output terminal
36	$\overline{\text{ACCON}}$	I	ACC power detection input terminal
37	PLLSI	I	PLL DATA input terminal
38	BEEP	O	Control output terminal for BEEP sound.
39	LCDCKO	O	LCD serial clock output terminal
40	LCDSO	O	LCD serial data output terminal
41	LCDINH	O	LCD blank display control output terminal
42	LCDCE	O	LCD chip enable output terminal
43	UNICKO	O	Serial clock output terminal
44	UNICI	I	Serial clock input terminal
45	UNISI	I	Serial data input terminal
46	UNISO	O	Serial data output terminal

Pin No.	Pin Name	I/O	Pin Description
47	VDD	—	Power terminal
48	AVDD	—	Power terminal of AD input port. Connect to pin ㊼.
49	AVREF+	—	Reference voltage input of AD input port. (+side)
50, 51	KEYIN1, KEYIN0	I	KEY input terminal
52, 53	KEYSEL1, KEYSEL0	I	Key function select setting input
54, 55	DSTSEL1, DSTSEL0	I	Connect to GND.
56	RCIN0	I	Rotaly Commander Shift input terminal
57	VSM	I	Signal meter AD input port terminal of FM/AM common.
58	AVREF−	—	Reference voltage input of AD input port. (−side)
59	AVSS	—	GND. Connect to pin ㊽.
60	GND	—	GND
61	BUSON	O	BUS ON control output terminal
62	$\overline{\text{SYSRST}}$	O	System reset output terminal
63	$\overline{\text{SEKOUT}}$	O	SEEK OUT output terminal
64	TUNON	O	TUNER power control output terminal
65	FM ON	O	FM power control output terminal
66	MUT	O	System MUTE output terminal
67	AF SEK	O	Output terminal for AF-SEEK.
68	COLOR	O	Illumination color select control output terminal
69	$\overline{\text{NOSESW}}$	I	Input pin for detecting mounting of front panel.
70	$\overline{\text{ST IN}}$	I	$\overline{\text{ST IN}}$ indicate to turn ON for "L".
		O	At forced monaural, output for "L".
71	SD IN	I	STOP decide on SEEK, AUTO-MEMORY and SCAN.
72	REL S	I	Reverse direction rotation detection input terminal of reel table.
73	PW SEL	I	Power select switching input terminal
74	REL T	I	Forward direction rotation detection input terminal of reel table.
75—78	POS4—POS1	I	Position signal detection input terminal
79	$\overline{\text{TEST}}$	I	Test mode input terminal
80	ILLIN	I	ILL IN signal detection input terminal

6-2. PRINTED WIRING BOARDS—MAIN SECTION—

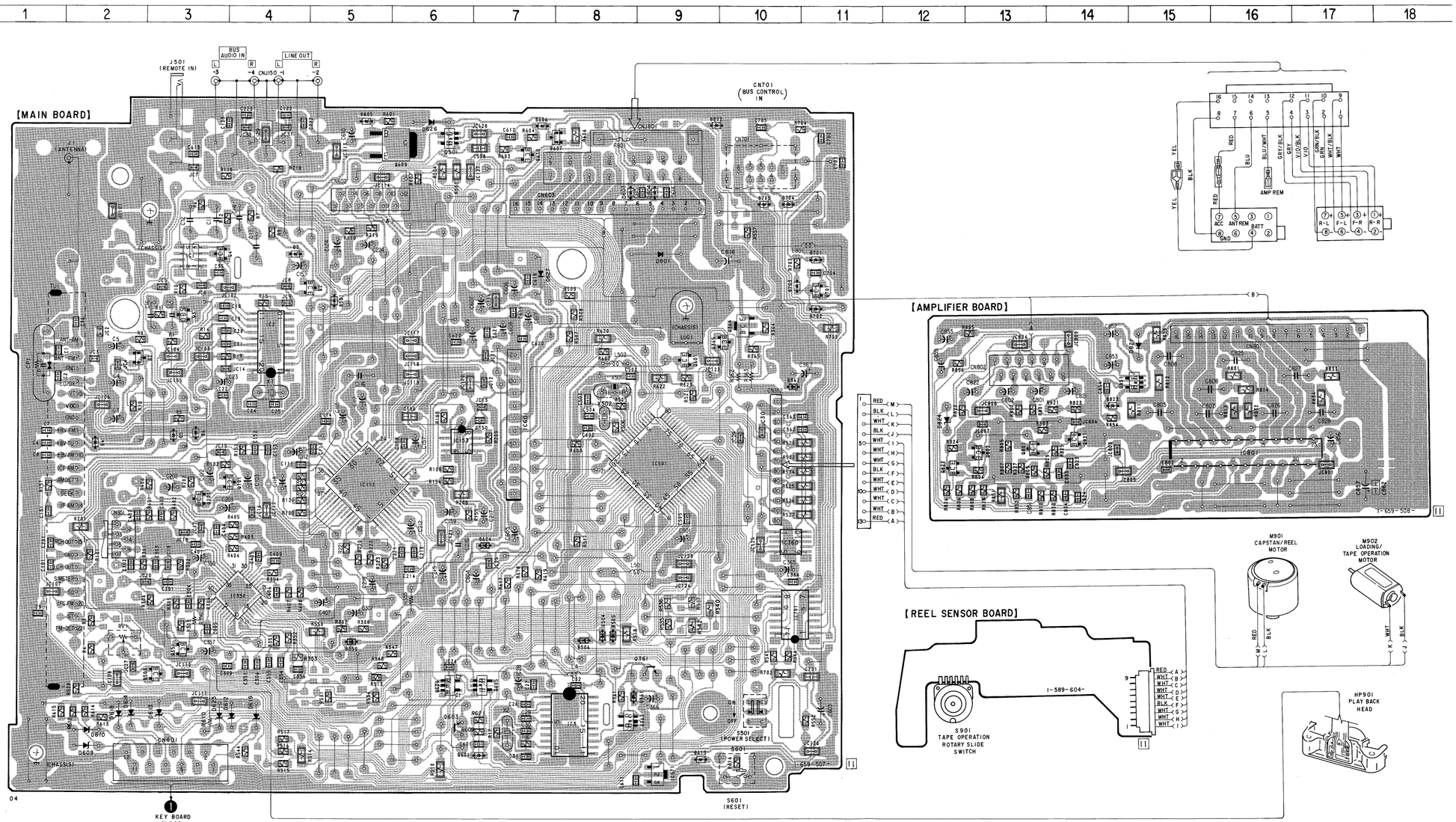
SEE ADDITIONAL INFORMATION

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	E-2	D824	E-12
D3	C-4		
D4	F-2	IC1	C-3
D5	E-3	IC2	D-4
D6	E-3	IC3	I-8
D350	H-5	IC152	F-5
D361	I-8	IC153	F-6
D362	E-10	IC350	G-4
D501	D-5	IC360	G-10
D504	H-8	IC501	F-9
D505	H-8	IC571	J-9
D506	H-8	IC601	E-7
D601	I-6	IC701	H-10
D605	B-5	IC801	F-16
D606	B-7		
D607	B-7	Q2	D-5
D609	I-2	Q3	D-3
D610	I-2	Q4	C-3
D612	I-4	Q101	F-4
D613	I-3	Q201	F-3
D614	I-2	Q351	H-3
D615	I-9	Q361	H-9
D618	I-2	Q362	I-8
D619	I-4	Q364	D-10
D624	G-7	Q365	D-10
D625	I-3	Q501	B-6
D626	B-6	Q503	H-3
D627	D-7	Q601	E-9
D701	C-11	Q603	I-6
D702	D-11	Q605	H-7
D703	D-10	Q606	H-6
D704	C-10	Q609	B-6
D705	C-10	Q610	B-7
D801	C-9	Q701	D-11
D802	B-9	Q801	F-13
D803	C-8	Q802	F-13
D804	C-9	Q821	F-14
D821	D-15	Q822	F-12
D823	E-14	Q851	E-15

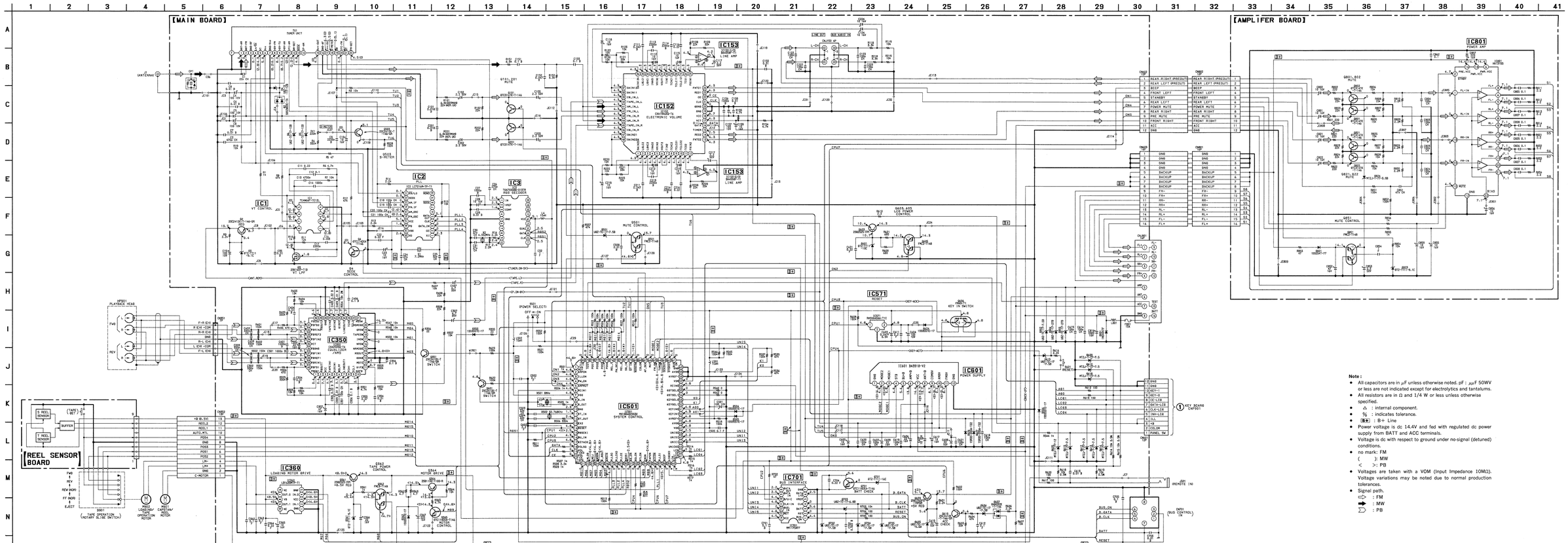
Note :

• ○— : parts extracted from the component side.



SEE ADDITIONAL INFORMATION

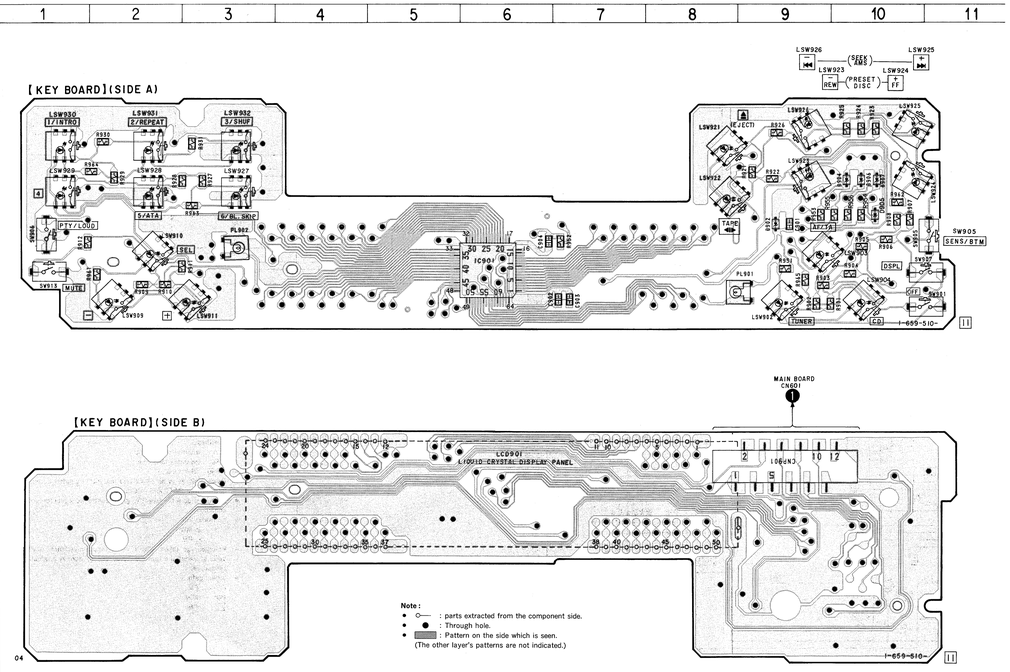
6-3. SCHEMATIC DIAGRAM—MAIN SECTION— • Refer to page 37 for IC Block Diagrams.


[MAIN BOARD]
[AMPLIFER BOARD]
[REEL SENSOR BOARD]
IC1
IC2
IC3
IC350
IC360
IC501
IC571
IC601
IC701
IC801
IC152
IC153
IC153
Note :
All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
All resistors are in Ω and 1/4 W or less unless otherwise specified.
△ : internal component.
% : indicates tolerance.
B+ : B+ Line
Power voltage is dc 14.4V and fed with regulated dc power supply from BATT and ACC terminals.
Voltage is dc with respect to ground under no-signal (detuned) conditions.
no mark: FM
( ): MW
< >: PB
Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
Signal path.
: FM
: MW
: PB

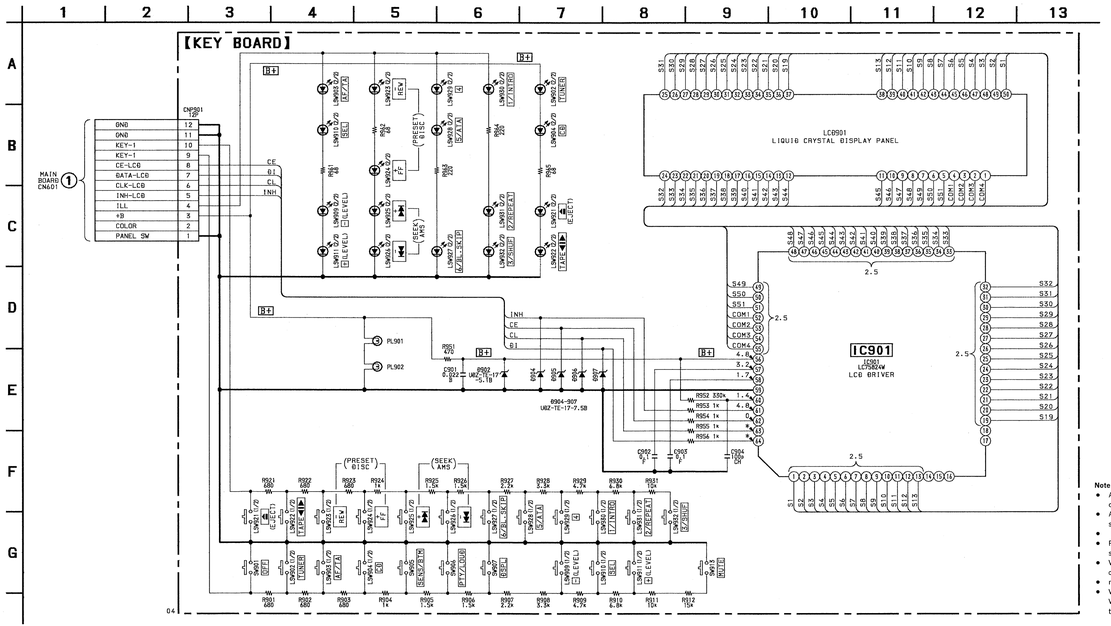
6-4. PRINTED WIRING BOARD—PANEL SECTION—

● Semiconductor Location

Ref. No.	Location
D902	C-9
D904	B-10
D905	C-10
D906	B-10
D907	B-10
IC901	C-6

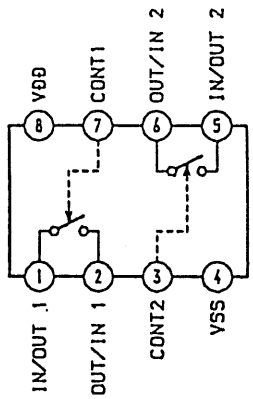

[KEY BOARD](SIDE A)
[KEY BOARD](SIDE B)
MAIN BOARD CN601
LCD901 LIQUID CRYSTAL DISPLAY PANEL
Note :
: parts extracted from the component side.
: Through hole.
: Pattern on the side which is seen.
(The other layer's patterns are not indicated.)

6-5. SCHEMATIC DIAGRAM—PANEL SECTION—

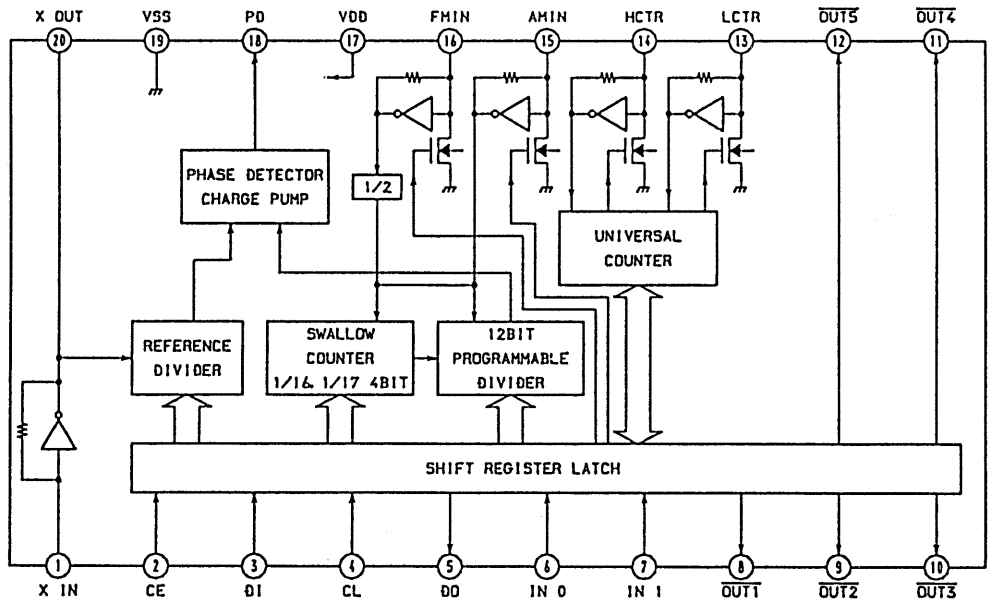

【KEY BOARD】
MAIN BOARD CN601
LCD901 LIQUID CRYSTAL DISPLAY PANEL
IC901 LC5851 LCD DRIVER
Note :
All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
All resistors are in Ω and 1/4 W or less unless otherwise specified.
【B+】 : B+ Line
Power voltage is dc 14.4V and fed with regulated dc power supply from BATT and ACC terminals.
Voltage is dc with respect to ground under no-signal (detuned) conditions.
no mark: FM
Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

• **IC Block Diagrams**

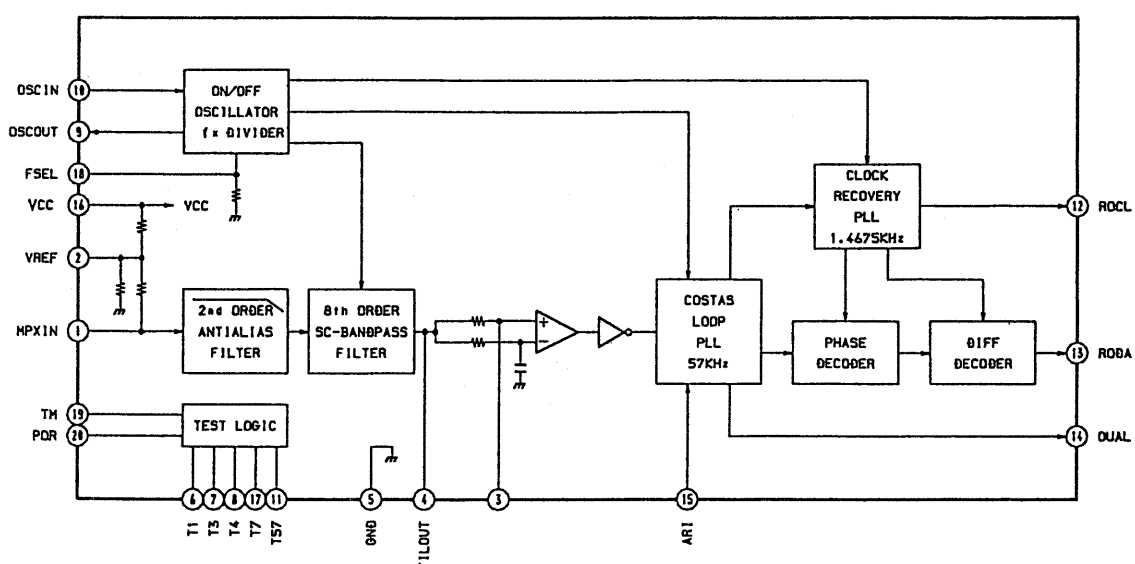
IC1 TC4W66F



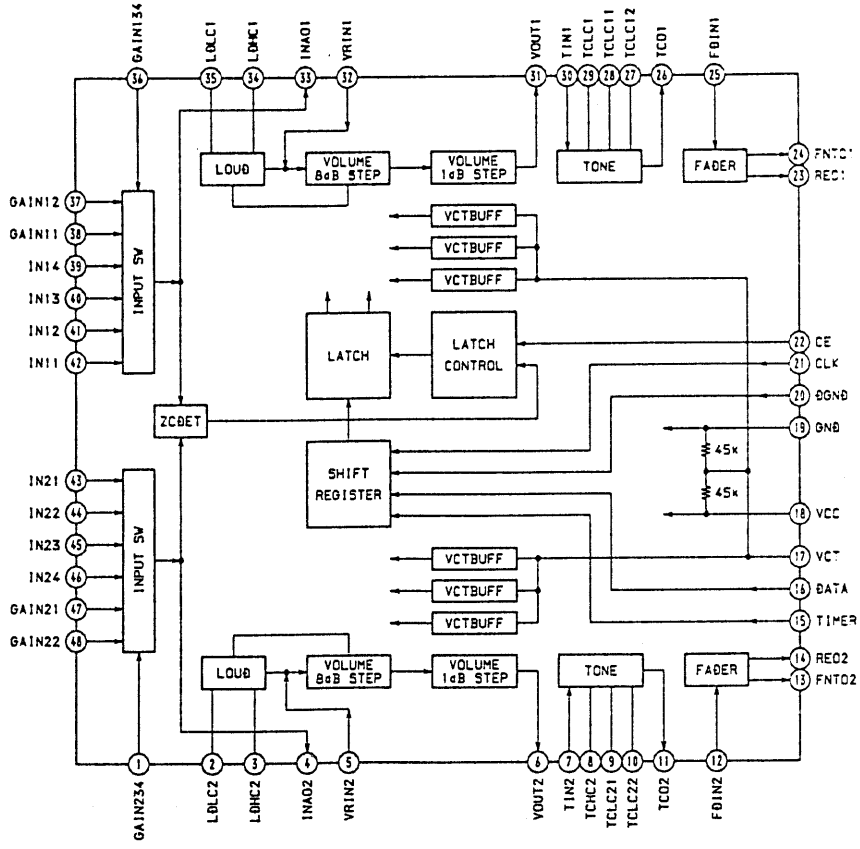
IC2 LC7216M



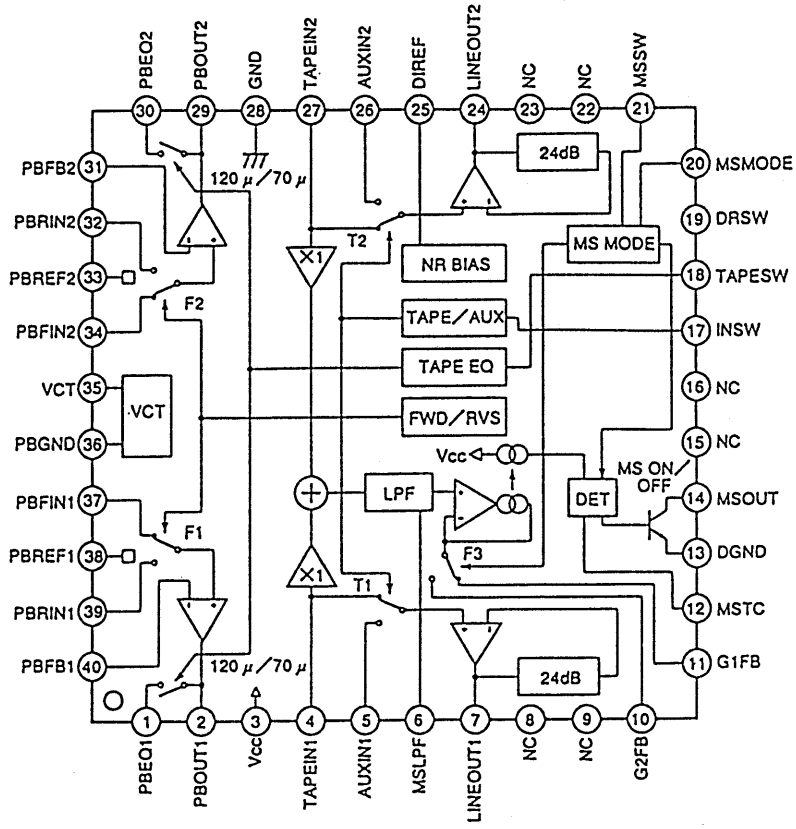
IC3 TDA7330BD



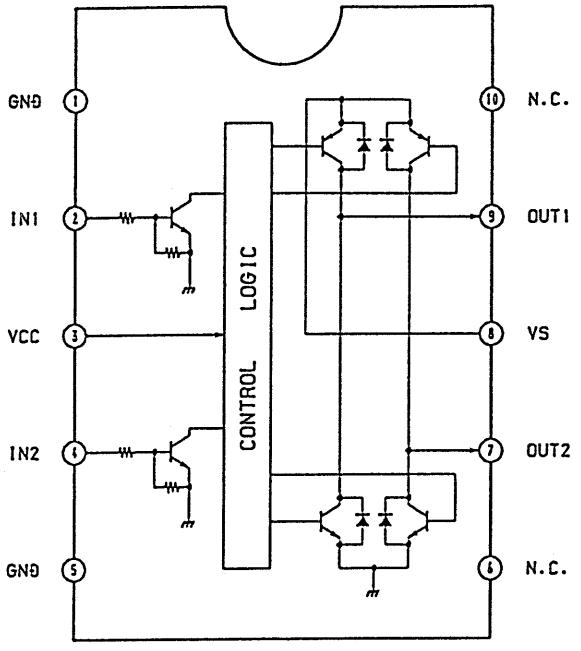
IC152 CXA1946AQ



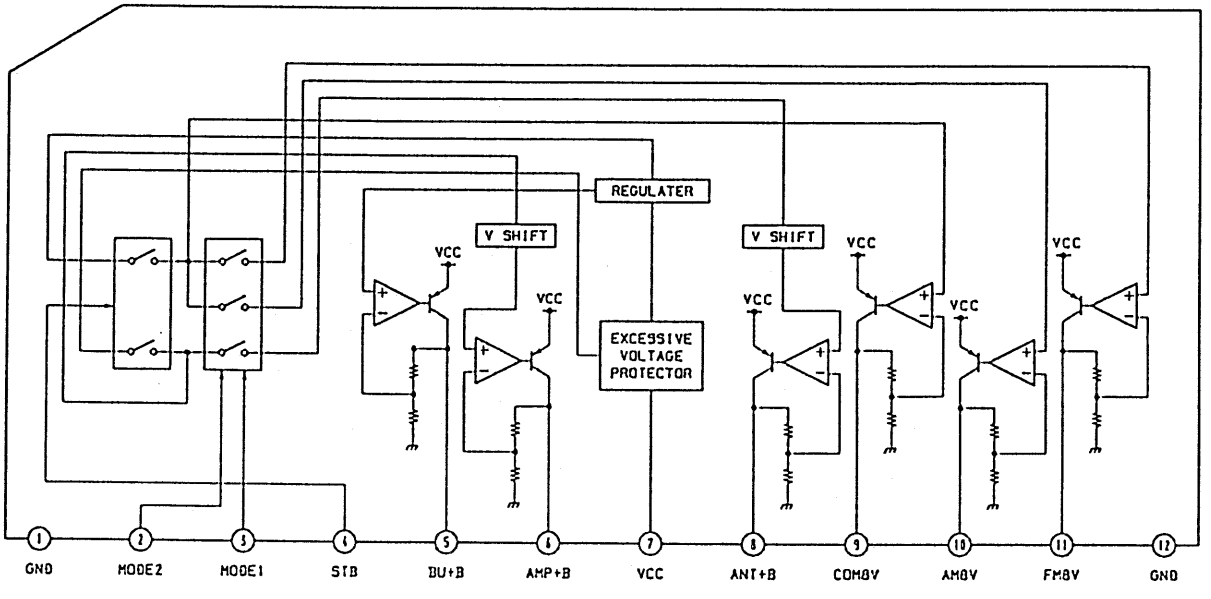
IC350 CXA2509Q-T4



IC360 LB1638MTP



IC601 BA3918-V3

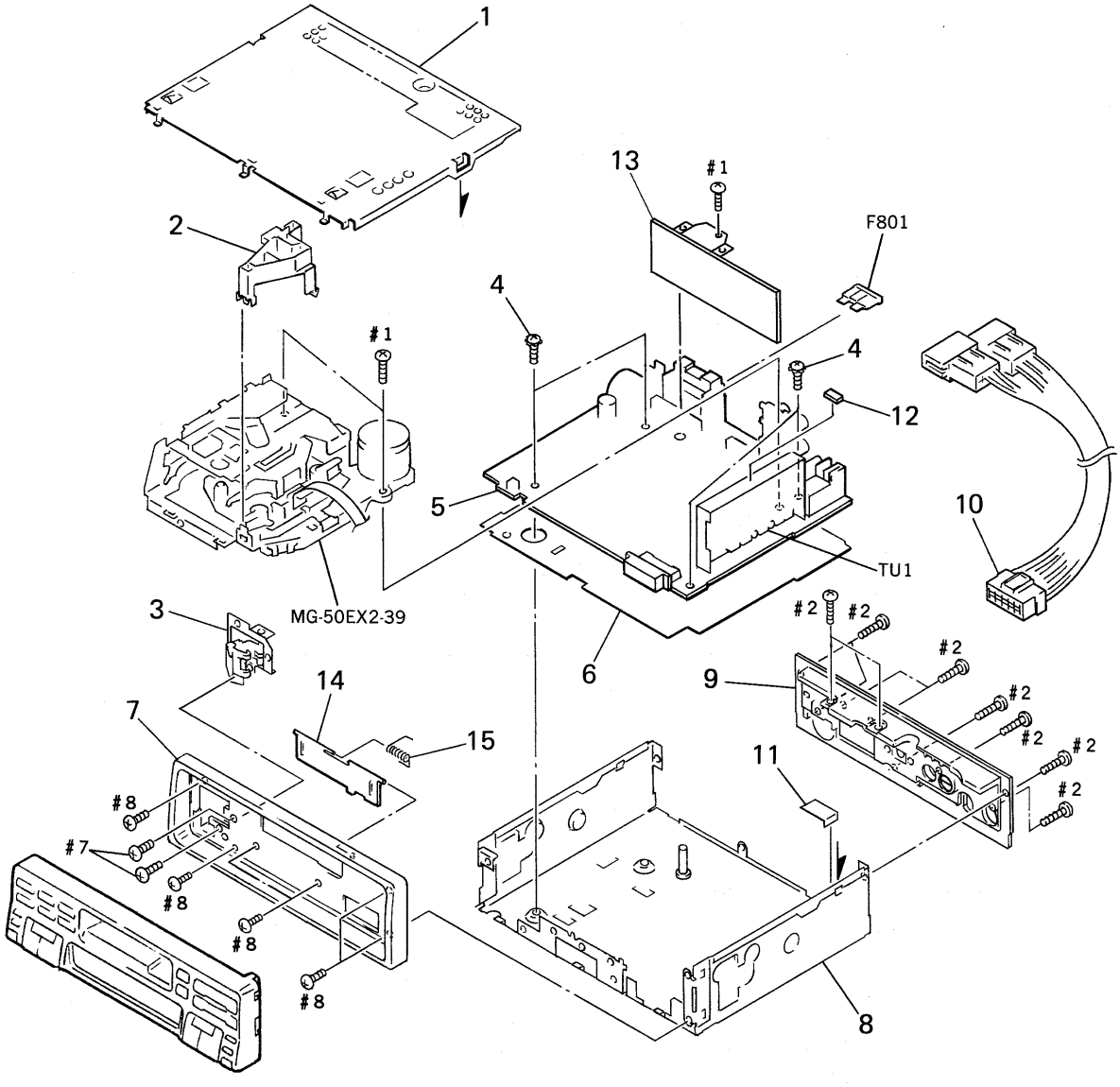


SECTION 7
EXPLODED VIEWS

NOTE:

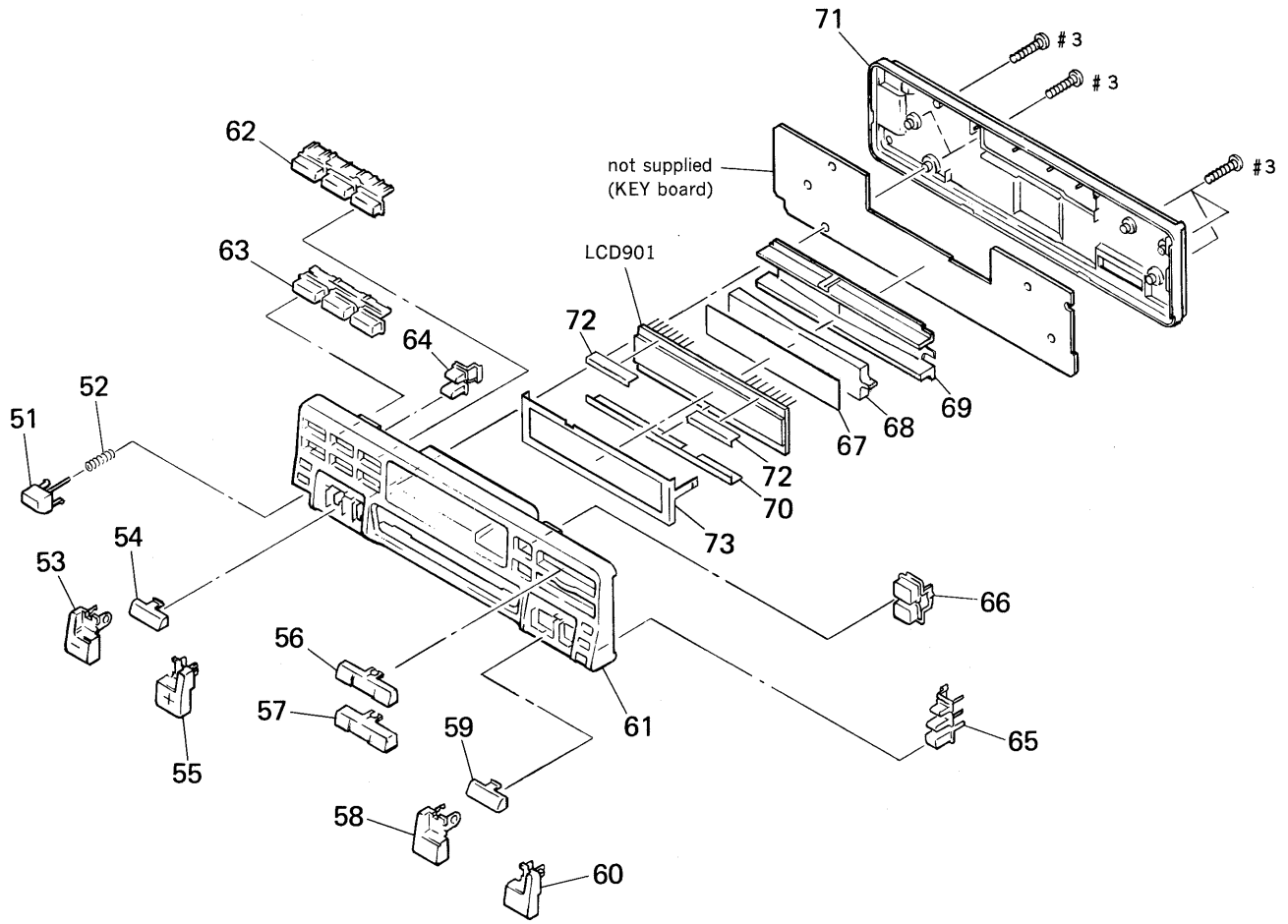
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  G : German model

7-1. CHASSIS SECTION



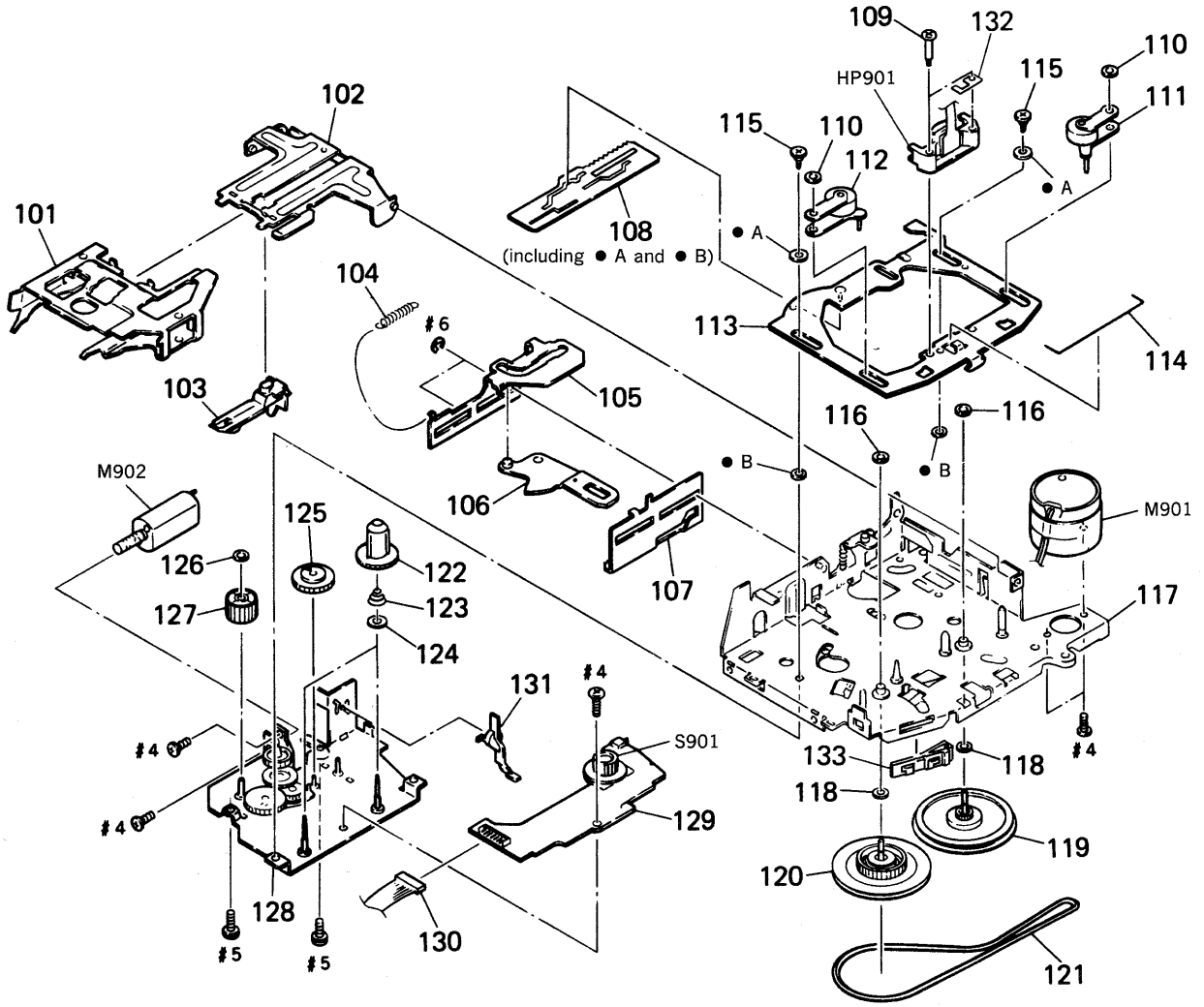
Ref. No.	Part No.	Description	Remark
* 1	X-3369-845-1	COVER ASSY	
2	3-916-872-01	GUIDE	
3	X-3367-636-1	LOCK ASSY	
4	3-915-923-01	SCREW, GROUND POINT	
* 5	A-3309-028-A	MAIN BOARD, COMPLETE (AEP, UK)	
* 5	A-3309-033-A	MAIN BOARD, COMPLETE (G)	
* 6	3-931-220-01	SHEET, INSULATING	
7	3-921-728-01	PANEL, SUB	
* 8	X-3369-844-1	CHASSIS ASSY	
* 9	3-931-219-01	HEAT SINK	
10	1-776-527-11	CORD (WITH CONNECTOR) (ISO)	
* 11	3-925-065-01	SHEET (CU)	
12	9-911-840-XX	CUSHION (U)	
* 13	A-3309-004-A	AMPLIFIER BOARD, COMPLETE	
14	3-918-583-31	DOOR, CASSETTE	
15	3-913-076-01	SPRING (C DOOR), TORSION	
F801	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
TU1	A-3282-012-A	TUNER UNIT (TUX-006(E))	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-918-689-01	BUTTON (RELEASE)	
52	3-918-693-01	SPRING (RELEASE)	
53	3-918-680-01	BUTTON (-)	
54	3-918-678-01	BUTTON (SEL)	
55	3-918-679-01	BUTTON (+)	
56	3-918-685-01	BUTTON (SEEK)	
57	3-918-686-21	BUTTON (PRESET)	
58	3-918-682-01	BUTTON (L)	
59	3-918-681-11	BUTTON (U)	
60	3-918-683-41	BUTTON (R)	
61	3-918-673-71	PANEL, FRONT	
62	3-918-676-01	BUTTON (1-3)	
63	3-918-677-21	BUTTON (4-6)	
64	3-918-687-01	BUTTON (2 GANGS)	
65	3-918-688-01	BUTTON (3 GANGS)	
66	3-918-684-01	BUTTON (EJECT)	
* 67	3-924-226-01	SHEET (REFLECTOR)	
* 68	3-921-731-01	PLATE, LIGHT GUIDE	
* 69	3-921-730-01	HOLDER (LCD)	
* 70	3-921-726-01	SHEET (LCD) (L)	
71	3-921-729-01	PANEL FRONT BACK	
* 72	3-921-727-01	SHEET (LCD) (S)	
* 73	3-925-112-01	PLATE, GROUND	
LCD901	1-801-160-21	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION (MG-50EX2-39)



Ref. No.	Part No.	Description	Remark
101	3-928-222-01	HOUSING (2), CASSETTE	
102	3-912-882-01	HANGER (2), HOUSING	
103	3-912-884-01	CATCHER	
104	3-912-885-01	SPRING (LOADING LEVER), TENSION	
* 105	3-912-892-01	LEVER (B), LOADING	
* 106	3-912-883-01	ARM, SUCTION	
107	3-922-941-01	LEVER (LOADING A)	
* 108	X-3370-516-1	LEVER (SV) ASSY, MODE	
109	3-927-100-11	SCREW (+PS 2X10), SPECIAL	
110	3-579-788-01	WASHER, STOPPER	
111	X-3368-266-1	PINCH LEVER (F) ASSY	
112	X-3368-267-1	PINCH LEVER (R) ASSY	
113	X-3370-824-1	BASE ASSY (HD2), HEAD	
114	3-912-879-01	SPRING, PINCH PRESS	
115	3-931-184-01	SCREW (HB2), STEP	
116	3-364-151-01	WASHER	
117	X-3368-841-1	CHASSIS (SV) ASSY (A), MECHANICAL	
118	3-701-437-21	WASHER	
119	3-930-932-01	FLYWHEEL (F) (SEF)	

Ref. No.	Part No.	Description	Remark
120	X-3371-303-1	CLUTCH (SEF) ASSY, FR	
121	3-912-896-01	BELT	
122	X-3368-843-1	GEAR ASSY, REEL	
123	3-917-222-01	SPRING (B-T), COIL	
124	3-917-324-01	WASHER (B-T)	
125	3-912-888-03	GEAR (LOADING E)	
126	3-321-813-01	WASHER, COTTER POLYETHYLENE	
127	3-912-889-01	GEAR (LOADING F)	
128	X-3368-842-1	BRACKET (SV) ASSY, REEL	
129	1-589-604-11	REEL SENSOR BOARD	
130	1-765-460-12	CORD (WITH CONNECTOR)	
131	3-916-358-01	LEVER (TAPE IN 2)	
* 132	3-917-258-01	PLATE, GROUND	
133	3-919-553-01	GUIDE (BELT)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3368-684-1	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	X-3368-685-1	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

SEE ADDITIONAL INFORMATION

SECTION 8
ELECTRICAL PARTS LIST

AMPLIFIER

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

- Abbreviation
  G : German model

Ref. No.	Part No.	Description			Remark
*	A-3309-004-A	AMPLIFIER BOARD, COMPLETE			
		**********			
	7-621-770-67	SCREW +PTT 2.6X6 (S)			
		< CAPACITOR >			
C801	1-126-157-11	ELECT	10uF	20%	16V
C802	1-126-157-11	ELECT	10uF	20%	16V
C803	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C804	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C805-808					
	1-136-165-00	FILM	0.1uF	5%	50V
C821	1-126-157-11	ELECT	10uF	20%	16V
C822	1-126-157-11	ELECT	10uF	20%	16V
C823	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C824	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C825-828					
	1-136-165-00	FILM	0.1uF	5%	50V
C851	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C852	1-124-589-11	ELECT	47uF	20%	16V
C853	1-124-257-00	ELECT	2.2uF	20%	50V
C854	1-164-346-11	CERAMIC CHIP	1uF		16V
C855	1-126-157-11	ELECT	10uF	20%	16V
C856	1-126-157-11	ELECT	10uF	20%	16V
C857	1-124-120-00	ELECT	220uF	20%	25V
C859	1-126-157-11	ELECT	10uF	20%	16V
C862	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN801	1-774-755-11	CONNECTOR, BOARD TO BOARD 16P			
CN802	1-774-810-11	CONNECTOR, BOARD TO BOARD 12P			
		< DIODE >			
D821	8-719-911-19	DIODE	1SS119-25		
D823	8-719-977-25	DIODE	DTZ9.1C		
D824	8-719-109-72	DIODE	RD3.9ES-B2		
		< IC >			
IC801	8-759-369-41	IC	HA13155		

Ref. No.	Part No.	Description			Remark
		< JUMPER RESISTOR >			
JC801	1-216-296-00	CONDUCTOR, CHIP	(3216)		
JC802	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC803	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC804	1-216-296-00	CONDUCTOR, CHIP	(3216)		
JC805	1-216-296-00	CONDUCTOR, CHIP	(3216)		
JC806	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC807	1-216-295-00	CONDUCTOR, CHIP	(2012)		
JC808	1-216-296-00	CONDUCTOR, CHIP	(3216)		
JC809	1-216-296-00	CONDUCTOR, CHIP	(3216)		
		< TRANSISTOR >			
Q801	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q802	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q821	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q822	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q851	8-729-921-25	TRANSISTOR	FMC2		
		< RESISTOR >			
R801	1-216-033-00	METAL CHIP	220	5%	1/10W
R802	1-216-033-00	METAL CHIP	220	5%	1/10W
R803	1-216-081-00	METAL CHIP	22K	5%	1/10W
R804	1-216-081-00	METAL CHIP	22K	5%	1/10W
R805-808					
	1-216-077-00	METAL CHIP	15K	5%	1/10W
R809	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R810	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R811-814					
	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R821	1-216-033-00	METAL CHIP	220	5%	1/10W
R822	1-216-033-00	METAL CHIP	220	5%	1/10W
R823	1-216-081-00	METAL CHIP	22K	5%	1/10W
R824	1-216-081-00	METAL CHIP	22K	5%	1/10W
R825-828					
	1-216-077-00	METAL CHIP	15K	5%	1/10W
R829	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R830	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R831-834					
	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R851	1-216-246-00	METAL GLAZE	100K	5%	1/8W

AMPLIFIER **KEY**

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
R852	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R853	1-216-166-00	METAL GLAZE	47	5%	1/8W
R854	1-216-073-00	METAL CHIP	10K	5%	1/10W
R855	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R856	1-216-049-11	METAL GLAZE	1K	5%	1/10W

****

KEY BOARD
****

X-3371-646-1 HOLDER (LCD) ASSY
X-3371-850-1 PLATE ASSY, LIGHT GUIDE
* 3-921-726-01 SHEET (LCD) (L)
* 3-921-727-01 SHEET (LCD) (S)
* 3-924-226-01 SHEET (REFLECTOR)

* 3-925-112-01 PLATE, GROUND

< CAPACITOR >

C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

< CONNECTOR >

CNP901 1-764-423-11 PIN, CONNECTOR 12P

< DIODE >

D902	8-719-976-99	DIODE	DTZ5.1B
D904	8-719-056-84	DIODE	UDZ-TE-17-7.5B
D905	8-719-056-84	DIODE	UDZ-TE-17-7.5B
D906	8-719-056-84	DIODE	UDZ-TE-17-7.5B
D907	8-719-056-84	DIODE	UDZ-TE-17-7.5B

< IC >

IC901 8-759-365-90 IC LC75824W

< LIQUID CRYSTAL DISPLAY >

LCD901 1-801-160-21 DISPLAY PANEL, LIQUID CRYSTAL

< SWITCH >

LSW902 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (TUNER)
LSW903 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (AF/TA)
LSW904 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (CD)
LSW909 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (-)
LSW910 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (SEL)

LSW911 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (+)
LSW921 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (⏏ (EJECT))
LSW922 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (TAPE ◀▮▶)
LSW923 1-762-141-12 SWITCH, KEY BOARD (WITH LED)
(- REW (PRESET/DISC))
LSW924 1-762-141-12 SWITCH, KEY BOARD (WITH LED)
(+ FF (PRESET/DISC))
LSW925 1-762-141-12 SWITCH, KEY BOARD (WITH LED)
(+ ⏭ (SEEK/AMS))
LSW926 1-762-141-12 SWITCH, KEY BOARD (WITH LED)
(- ⏮ (SEEK/AMS))
LSW927 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (6 BL.SKIP)
LSW928 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (5 ATA)

LSW929 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (4)
LSW930 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (1 INTRO)
LSW931 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (2 REPEAT)
LSW932 1-762-141-12 SWITCH, KEY BOARD (WITH LED) (3 SHUF)

< PILOT LAMP >

PL901 1-517-406-21 LAMP, PILOT
PL902 1-517-406-21 LAMP, PILOT

< RESISTOR >

R901-903					
	1-216-045-00	METAL CHIP	680	5%	1/10W
R904	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R905	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R906	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R907	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R908	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R909	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R910	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-077-00	METAL CHIP	15K	5%	1/10W
R921-923					
	1-216-045-00	METAL CHIP	680	5%	1/10W
R924	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R925	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R926	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R927	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R928	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R929	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R930	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R931	1-216-073-00	METAL CHIP	10K	5%	1/10W
R951	1-216-041-00	METAL CHIP	470	5%	1/10W
R952	1-216-109-00	METAL CHIP	330K	5%	1/10W
R953-956					
	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R961	1-216-021-00	METAL CHIP	68	5%	1/10W
R962	1-216-021-00	METAL CHIP	68	5%	1/10W
R963	1-216-033-00	METAL CHIP	220	5%	1/10W
R964	1-216-033-00	METAL CHIP	220	5%	1/10W
R965	1-216-021-00	METAL CHIP	68	5%	1/10W

SEE ADDITIONAL INFORMATION

KEY MAIN

Ref.No.	Part No.	Description			Remark
		< SWITCH >			
SW901	1-762-357-11	SWITCH (OFF)			
SW905	1-762-357-11	SWITCH (SENS/BTM)			
SW906	1-762-357-11	SWITCH (PTY/LOUD)			
SW907	1-762-357-11	SWITCH (DSPL)			
SW913	1-762-357-11	SWITCH (MUTE)			
**********					
*	A-3309-028-A	MAIN BOARD, COMPLETE (AEP,UK)			
*	A-3309-033-A	MAIN BOARD, COMPLETE (G)			
		**********			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3-5					
	1-124-584-00	ELECT	100uF	20%	10V
C6-8					
	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C11	1-136-169-00	FILM	0.22uF	5%	50V
C12	1-136-165-00	FILM	0.1uF	5%	50V
C13	1-130-479-00	MYLAR	0.0047uF	5%	50V
C14	1-110-351-11	MYLAR	0.001uF	5%	50V
C15	1-124-584-00	ELECT	100uF	20%	10V
C16	1-136-159-00	FILM	0.033uF	5%	50V
C17	1-130-475-00	MYLAR	0.0022uF	5%	50V
C18-21					
	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C22	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C23	1-126-157-11	ELECT	10uF	20%	16V
C24	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C25	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C26	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C27	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C28	1-126-157-11	ELECT	10uF	20%	16V
C29	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C30	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C31	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C32	1-164-346-11	CERAMIC CHIP	1uF		16V
C35	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C36	1-216-295-00	CONDUCTOR, CHIP	(2012)		
C101	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C102	1-124-257-00	ELECT	2.2uF	20%	50V
C103	1-124-257-00	ELECT	2.2uF	20%	50V
C111	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C112	1-126-157-11	ELECT	10uF	20%	16V
C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C114	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C115	1-126-157-11	ELECT	10uF	20%	16V
C116	1-136-169-00	FILM	0.22uF	5%	50V
C117	1-124-257-00	ELECT	2.2uF	20%	50V
C118	1-126-157-11	ELECT	10uF	20%	16V
C122	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C123	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C124	1-126-157-11	ELECT	10uF	20%	16V
C150	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C151	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C152	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C153	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C156	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C157	1-124-584-00	ELECT	100uF	20%	10V
C158	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C159	1-126-157-11	ELECT	10uF	20%	16V
C201	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C202	1-124-257-00	ELECT	2.2uF	20%	50V
C203	1-124-257-00	ELECT	2.2uF	20%	50V
C211	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C212	1-126-157-11	ELECT	10uF	20%	16V
C213	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C214	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C215	1-126-157-11	ELECT	10uF	20%	16V
C216	1-136-169-00	FILM	0.22uF	5%	50V
C217	1-124-257-00	ELECT	2.2uF	20%	50V
C218	1-126-157-11	ELECT	10uF	20%	16V
C222	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C223	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C224	1-126-157-11	ELECT	10uF	20%	16V
C301	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C303	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C304	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C305	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C306	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C307	1-126-163-11	ELECT	4.7uF	20%	50V
C309	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C350	1-124-234-00	ELECT	22uF	20%	16V
C351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C354	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C355	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C356	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C357	1-124-589-11	ELECT	47uF	20%	16V
C362	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C363	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C364	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C365	1-126-157-11	ELECT	10uF	20%	16V
C366	1-124-234-00	ELECT	22uF	20%	16V
C367	1-124-120-11	ELECT	220uF	20%	25V
C401	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

SEE ADDITIONAL INFORMATION

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Ref. No.	Part No.	Description			Remark
C402	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C403	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C405	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C407	1-126-163-11	ELECT	4.7uF	20%	50V
C409	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C501	1-124-584-00	ELECT	100uF	20%	10V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C504	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C601	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C602	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C603	1-125-701-11	CAPACITOR	0.047F		5.5V
C604	1-124-584-00	ELECT	100uF	20%	10V
C605	1-126-157-11	ELECT	10uF	20%	16V
C606	1-124-234-00	ELECT	22uF	20%	16V
C607	1-126-096-11	ELECT	10uF	20%	35V
C608-610					
	1-124-234-00	ELECT	22uF	20%	16V
C611	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C612	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C613	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C614	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C615	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C617	1-126-157-11	ELECT	10uF	20%	16V
C618-622					
	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C701	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C702	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C703	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C704	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C705	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C816	1-126-936-11	ELECT	3300uF	20%	16V
		< CONNECTOR >			
CN351	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P			
* CN352	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
CN601	1-764-422-11	PLUG, CONNECTOR 12P			
CN602	1-774-809-11	CONNECTOR, BOARD TO BOARD 12P			
* CN603	1-770-212-11	CONNECTOR, BOARD TO BOARD 16P			
CN701	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CNJ801	1-774-701-11	PIN, CONNECTOR 16P			
		< JACK >			
CNJ150	1-774-699-11	JACK, PIN 4P (LINE OUT/BUS AUDIO IN)			

Ref. No.	Part No.	Description	Remark
		< DISCHARGE GAP >	
CP1	1-519-504-11	GAP, DISCHARGE	
		< DIODE >	
D2	8-719-991-65	DIODE SBO2W03C	
D3	8-719-977-25	DIODE DTZ9.1C	
D4	8-719-158-49	DIODE RD12SB2	
D5	8-719-158-49	DIODE RD12SB2	
D6	8-719-158-49	DIODE RD12SB2	
D350	8-719-988-62	DIODE 1SS355	
D361	8-719-977-25	DIODE DTZ9.1C	
D362	8-719-988-62	DIODE 1SS355	
D501	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D504	8-719-988-62	DIODE 1SS355	
D505	8-719-988-62	DIODE 1SS355	
D506	8-719-988-62	DIODE 1SS355	
D601	8-719-978-50	DIODE DTZ-TT11-10C	
D605	8-719-158-15	DIODE RD5.6S-B	
D606	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D607	8-719-914-43	DIODE DAN202K	
D609	8-719-921-63	DIODE MTZJ-7.5B	
D610	8-719-921-63	DIODE MTZJ-7.5B	
D612	8-719-921-63	DIODE MTZJ-7.5B	
D613	8-719-921-63	DIODE MTZJ-7.5B	
D614	8-719-921-63	DIODE MTZJ-7.5B	
D615	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D618	8-719-921-63	DIODE MTZJ-7.5B	
D619	8-719-921-63	DIODE MTZJ-7.5B	
D624	8-719-988-62	DIODE 1SS355	
D625	8-719-923-78	DIODE MTZJ-T-77-12	
D626	8-719-200-02	DIODE 10E2	
D627	8-719-200-02	DIODE 10E2	
D701	8-719-977-54	DIODE DTZ16C	
D702	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D703	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D704	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D705	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D801	8-719-056-09	DIODE 1N5404TF	
D802	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D803	8-719-056-97	DIODE UDZ-TE-17-27B	
D804	8-719-056-97	DIODE UDZ-TE-17-27B	
		< FUSE >	
F801	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
		< IC >	
IC1	8-759-242-66	IC TC4W66F	

SEE ADDITIONAL INFORMATION

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Ref. No.	Part No.	Description		Remark
IC2	8-759-823-81	IC	LC7216M	
IC3	8-759-163-63	IC	TDA7330BD-013TR	
IC152	8-752-075-48	IC	CXA1946AQ-T6	
IC153	8-759-909-71	IC	BA4558F	
IC350	8-752-076-05	IC	CXA2509Q-T4	
IC360	8-759-823-87	IC	LB1638M	
IC501	8-759-395-46	IC	MN1884820S3X	
IC571	8-759-097-36	IC	RH5VA40AA	
IC601	8-759-347-49	IC	BA3918-V2	
IC701	8-759-096-16	IC	MM1175XFF	
		< JACK >		
J1	1-770-279-12	JACK (ANTENNA) (ISO)		
J501	1-566-822-11	JACK (REMOTE IN)		
		< JUMPER RESISTOR >		
JC2-9				
	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC11-20				
	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC24	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC25	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC27	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC29-32				
	1-216-295-00	CONDUCTOR, CHIP		(2012)
JC101-108				
	1-216-296-00	CONDUCTOR, CHIP		(3216)
JC110-114				
	1-216-296-00	CONDUCTOR, CHIP		(3216)
JC116-129				
	1-216-296-00	CONDUCTOR, CHIP		(3216)
		< COIL >		
L4	1-410-971-11	INDUCTOR	10uH	
L501	1-410-971-11	INDUCTOR	10uH	
L502	1-410-971-11	INDUCTOR	10uH	
L801	1-411-669-12	COIL, CHOKE		
		< TERMINAL BOARD >		
* LUG1	1-537-770-11	TERMINAL BOARD, GROUND		
		< TRANSISTOR >		
Q2	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q3	8-729-021-94	TRANSISTOR	2SK1657-T1B	
Q4	8-729-900-53	TRANSISTOR	DTC114EK	
Q101	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q351	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q361	8-729-030-18	TRANSISTOR	2SD2525	
Q362	8-729-920-41	TRANSISTOR	FMC3	
Q364	8-729-106-60	TRANSISTOR	2SB1115A	
Q365	8-729-900-53	TRANSISTOR	DTC114EK	
Q501	8-729-921-25	TRANSISTOR	FMC2	
Q503	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q603	8-729-030-18	TRANSISTOR	2SD2525	
Q605	8-729-921-25	TRANSISTOR	FMC2	
Q606	8-729-924-73	TRANSISTOR	FMA9	
Q609	8-729-921-48	TRANSISTOR	2SD1760F5-Q	
Q610	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q701	8-729-900-53	TRANSISTOR	DTC114EK	
		< RESISTOR >		
R1	1-216-049-11	METAL GLAZE	1K 5%	1/10W
R3	1-216-073-00	METAL CHIP	10K 5%	1/10W
R4	1-216-109-00	METAL CHIP	330K 5%	1/10W
R5	1-216-017-00	METAL GLAZE	47 5%	1/10W
R6	1-216-065-00	METAL CHIP	4.7K 5%	1/10W
R7	1-216-073-00	METAL CHIP	10K 5%	1/10W
R8	1-216-089-00	METAL GLAZE	47K 5%	1/10W
R9	1-216-057-00	METAL CHIP	2.2K 5%	1/10W
R10	1-216-049-11	METAL GLAZE	1K 5%	1/10W
R11	1-216-075-00	METAL CHIP	12K 5%	1/10W
R12	1-216-089-00	METAL GLAZE	47K 5%	1/10W
R13	1-216-057-00	METAL CHIP	2.2K 5%	1/10W
R14	1-216-057-00	METAL CHIP	2.2K 5%	1/10W
R15	1-216-073-00	METAL CHIP	10K 5%	1/10W
R16	1-216-057-00	METAL CHIP	2.2K 5%	1/10W
R17	1-216-129-00	METAL CHIP	2.2M 5%	1/10W
R19	1-216-073-00	METAL CHIP	10K 5%	1/10W
R101	1-216-069-00	METAL CHIP	6.8K 5%	1/10W (G)
R101	1-216-081-00	METAL CHIP	22K 5%	1/10W (AEP, UK)
R102	1-216-081-00	METAL CHIP	22K 5%	1/10W
R108	1-216-081-00	METAL CHIP	22K 5%	1/10W
R109	1-216-085-00	METAL CHIP	33K 5%	1/10W
R118	1-216-061-00	METAL CHIP	3.3K 5%	1/10W
R119	1-216-073-00	METAL CHIP	10K 5%	1/10W
R120	1-216-073-00	METAL CHIP	10K 5%	1/10W
R121	1-216-085-00	METAL CHIP	33K 5%	1/10W
R122	1-216-073-00	METAL CHIP	10K 5%	1/10W
R123	1-216-073-00	METAL CHIP	10K 5%	1/10W
R151	1-216-069-00	METAL CHIP	6.8K 5%	1/10W
R152	1-216-061-00	METAL CHIP	3.3K 5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K 5%	1/10W
R155	1-216-065-00	METAL CHIP	4.7K 5%	1/10W
R201	1-216-218-00	METAL GLAZE	6.8K 5%	1/8W (G)
R201	1-216-230-00	METAL GLAZE	22K 5%	1/8W (AEP, UK)

SEE ADDITIONAL INFORMATION

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Ref. No.	Part No.	Description			Remark
R202	1-216-081-00	METAL CHIP	22K	5%	1/10W
R208	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R209	1-216-085-00	METAL CHIP	33K	5%	1/10W
R218	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-073-00	METAL CHIP	10K	5%	1/10W
R221	1-216-085-00	METAL CHIP	33K	5%	1/10W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W
R301	1-216-101-00	METAL CHIP	150K	5%	1/10W
R302	1-216-101-00	METAL CHIP	150K	5%	1/10W
R303	1-216-076-00	METAL CHIP	13K	5%	1/10W
R304	1-216-079-00	METAL CHIP	18K	5%	1/10W
R305	1-216-109-00	METAL CHIP	330K	5%	1/10W
R306	1-216-041-00	METAL CHIP	470	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-081-00	METAL CHIP	22K	5%	1/10W
R351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R352	1-216-077-00	METAL CHIP	15K	5%	1/10W
R353	1-216-109-00	METAL CHIP	330K	5%	1/10W
R354	1-208-812-11	METAL CHIP	18K	0.5%	1/10W
R355	1-247-791-00	CARBON	22	5%	1/4W
R356	1-247-791-00	CARBON	22	5%	1/4W
R361	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R362	1-249-389-11	CARBON	4.7	5%	1/4W
R363	1-249-389-11	CARBON	4.7	5%	1/4W
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R401	1-216-101-00	METAL CHIP	150K	5%	1/10W
R402	1-216-101-00	METAL CHIP	150K	5%	1/10W
R403	1-216-076-00	METAL CHIP	13K	5%	1/10W
R404	1-216-079-00	METAL CHIP	18K	5%	1/10W
R405	1-216-109-00	METAL CHIP	330K	5%	1/10W
R406	1-216-041-00	METAL CHIP	470	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-081-00	METAL CHIP	22K	5%	1/10W
R501	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R504	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R505	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R506	1-216-109-00	METAL CHIP	330K	5%	1/10W
R507	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R508	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R509	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R510	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R511	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R513	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R514	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R515-517	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R518	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R521	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R522-527	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R528	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R534	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R535	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R536	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R537	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R540	1-216-295-00	CONDUCTOR, CHIP			(2012)
R542	1-216-295-00	CONDUCTOR, CHIP			(2012)
R544	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R545	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R546	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R547	1-216-073-00	METAL CHIP	10K	5%	1/10W
R548	1-216-073-00	METAL CHIP	10K	5%	1/10W
R550	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R552	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R557	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R601	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R602	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R603	1-216-085-00	METAL CHIP	33K	5%	1/10W
R604	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R606	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W
R608	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R609	1-216-045-00	METAL CHIP	680	5%	1/10W
R610	1-249-385-11	CARBON	2.2	5%	1/6W
R612	1-216-025-00	METAL GLAZE	100	5%	1/10W
R613	1-216-025-00	METAL GLAZE	100	5%	1/10W
R614	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R615	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R616	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R617	1-216-025-00	METAL GLAZE	100	5%	1/10W
R618	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R619	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R620	1-216-174-00	METAL GLAZE	100	5%	1/8W
R621	1-216-045-00	METAL CHIP	680	5%	1/10W
R622	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R623	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R702	1-216-166-00	METAL GLAZE	47	5%	1/8W
R703	1-216-073-00	METAL CHIP	10K	5%	1/10W
R704	1-216-025-00	METAL GLAZE	100	5%	1/10W
R705	1-216-174-00	METAL GLAZE	100	5%	1/8W

< VARIABLE RESISTOR >

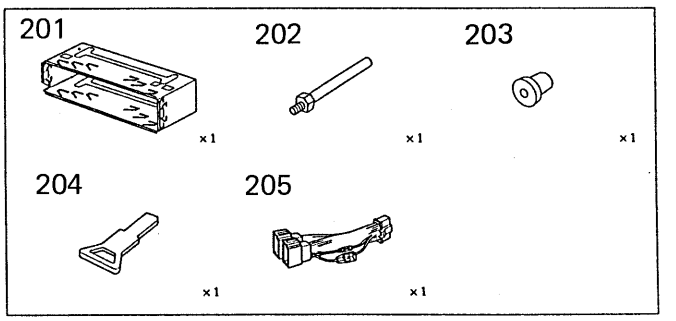
RV1	1-241-768-11	RES, ADJ, CARBON 220K

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)	
S601	1-571-532-21	SWITCH, TACTILE (RESET)	
		< TUNER >	
TU1	A-3282-012-A	TUNER UNIT (TUX-006(E))	
		< VIBRATOR >	
X1	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)	
X2	1-760-556-11	VIBRATOR, CRYSTAL (4.332MHz)	
X501	1-579-952-21	VIBRATOR, CERAMIC (8MHz)	
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)	
		MISCELLANEOUS	
10	1-776-527-11	CORD (WITH CONNECTOR) (ISO)	
130	1-765-460-12	CORD (WITH CONNECTOR)	
F801	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3368-684-1	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	X-3368-685-1	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	
		ACCESSORIES & PACKING MATERIALS	
	3-810-232-11	MANUAL, INSTRUCTION, INSTALL (FRENCH, GERMAN, DUTCH, ITALIAN)	
	3-810-232-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)	
	3-810-233-11	MANUAL, INSTRUCTION (FRENCH, FERMAN, DUTCH, ITALIAN)	
	3-810-233-41	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)	
	X-3367-795-1	CASE ASSY	

Ref. No.	Part No.	Description	Remark
		HARDWARE LIST	
#1	7-621-770-67	SCREW +PTT 2.6X6 (S)	
#2	7-621-770-XX	SCREW +PTT 2.6X8 (S)	
#3	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#4	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#5	7-628-253-00	SCREW +PS 2X4	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-621-772-10	SCREW +B 2X4	
#8	7-621-773-95	SCREW +PTT 2.6X6 (S)	
		MOUNTING HARDWARE	
201	X-3366-235-1	FRAME ASSY, FITTING (G)	
201	X-3371-638-1	FRAME ASSY (B), FITTING (AEP, UK)	
202	3-386-828-01	SCREW, FITTING	
* 203	3-358-697-01	BUSHING	
204	3-909-731-01	KEY	
205	1-776-527-11	CORD (WITH CONNECTOR) (ISO)	



9-923-514-11

Sony Corporation
Mobile Electronics Company

English
96C047548-1
Printed in Germany
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Published by Home A & V Products Div.
Quality Engineering Dept.

XR-C290RDS

SONY

AEP Model
UK Model

SERVICE MANUAL

SUPPLEMENT-1

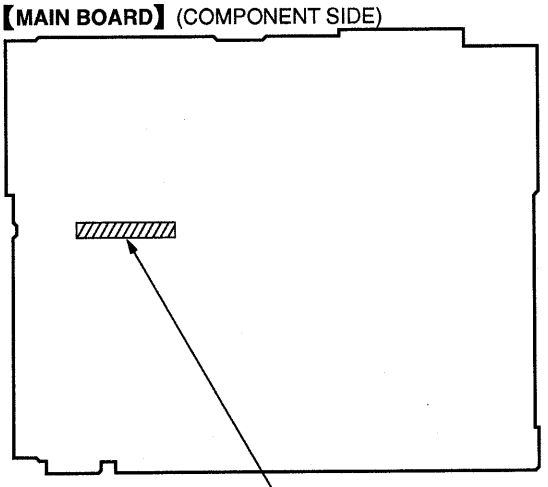
File this supplement with the service manual.

Subject : Change of Main and Amplifier Boards

(SPM-97047)

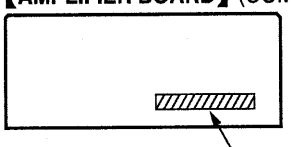
When performing service and inspection, check the suffix of the part number of the main board and amplifier board.

【MAIN BOARD】 (COMPONENT SIDE)



Main board Part No.
Former : 1-659-507-11
New : 1-659-507-12

【AMPLIFIER BOARD】 (COMPONENT SIDE)



Amplifier board Part No.
Former : 1-659-508-11
New : 1-659-508-12

9-923-514-81

Sony Corporation
Personal & Mobile Communication Company

97J047549-1
Printed in Hungary ©1997. 10
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AMPLIFIER

1. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  G : German model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark
*	A-3309-004-A	AMPLIFIER BOARD, COMPLETE				
		**********				
	7-685-792-09	SCREW +PTT 2.6X6 (S)				
		< CAPACITOR >				
C801	1-126-157-11	ELECT	10uF	20%	16V	
C802	1-126-157-11	ELECT	10uF	20%	16V	
C803	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C804	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C805	1-136-165-00	FILM	0.1uF	5%	50V	
C806	1-136-165-00	FILM	0.1uF	5%	50V	
C807	1-136-165-00	FILM	0.1uF	5%	50V	
C808	1-136-165-00	FILM	0.1uF	5%	50V	
C821	1-126-157-11	ELECT	10uF	20%	16V	
C822	1-126-157-11	ELECT	10uF	20%	16V	
C823	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C824	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C825	1-136-165-00	FILM	0.1uF	5%	50V	
C826	1-136-165-00	FILM	0.1uF	5%	50V	
C827	1-136-165-00	FILM	0.1uF	5%	50V	
C828	1-136-165-00	FILM	0.1uF	5%	50V	
C851	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C852	1-124-589-11	ELECT	47uF	20%	16V	
C853	1-124-257-00	ELECT	2.2uF	20%	50V	
C854	1-164-346-11	CERAMIC CHIP	1uF		16V	
C855	1-126-157-11	ELECT	10uF	20%	16V	
C856	1-126-157-11	ELECT	10uF	20%	16V	
C857	1-126-934-11	ELECT	220uF	20%	16V	
C859	1-126-157-11	ELECT	10uF	20%	16V	
C862	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
		< CONNECTOR >				
CN801	1-774-755-11	CONNECTOR, BOARD TO BOARD 16P				
CN802	1-774-810-11	CONNECTOR, BOARD TO BOARD 12P				
		< DIODE >				
D821	8-719-911-19	DIODE 1SS119-25				
D823	8-719-977-25	DIODE DTZ9.1C				
D824	8-719-109-72	DIODE RD3.9ES-B2				

Ref. No.	Part No.	Description				Remark
		< IC >				
IC801	8-759-448-48	IC HA13155				
		< JUMPER RESISTOR >				
JC801	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC802	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC803	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC804	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC805	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC806	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC807	1-216-295-00	CONDUCTOR, CHIP	(2012)			
JC808	1-216-296-00	CONDUCTOR, CHIP	(3216)			
JC809	1-216-296-00	CONDUCTOR, CHIP	(3216)			
		< TRANSISTOR >				
Q801	8-729-920-21	TRANSISTOR DTC314TKH04				
Q802	8-729-920-21	TRANSISTOR DTC314TKH04				
Q821	8-729-920-21	TRANSISTOR DTC314TKH04				
Q822	8-729-920-21	TRANSISTOR DTC314TKH04				
Q851	8-729-921-25	TRANSISTOR FMC2				
		< RESISTOR >				
R801	1-216-033-00	METAL CHIP	220	5%	1/10W	
R802	1-216-033-00	METAL CHIP	220	5%	1/10W	
R803	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R804	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R805	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R806	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R807	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R808	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R809	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R810	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R811	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R812	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R813	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R814	1-216-134-00	METAL CHIP	2.2	5%	1/8W	
R821	1-216-033-00	METAL CHIP	220	5%	1/10W	
R822	1-216-033-00	METAL CHIP	220	5%	1/10W	
R823	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R824	1-216-081-00	METAL CHIP	22K	5%	1/10W	

Ref. No.	Part No.	Description			Remark
R825	1-216-077-00	METAL CHIP	15K	5%	1/10W
R826	1-216-077-00	METAL CHIP	15K	5%	1/10W
R827	1-216-077-00	METAL CHIP	15K	5%	1/10W
R828	1-216-077-00	METAL CHIP	15K	5%	1/10W
R829	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R830	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R831	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R832	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R833	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R834	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R851	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R852	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R853	1-216-166-00	METAL GLAZE	47	5%	1/8W
R854	1-216-073-00	METAL CHIP	10K	5%	1/10W
R855	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R856	1-216-049-11	METAL GLAZE	1K	5%	1/10W

****

*	A-3309-028-A	MAIN BOARD, COMPLETE (AEP,UK)	
*	A-3309-033-A	MAIN BOARD, COMPLETE (G)	
		**********	
		< CAPACITOR >	

C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3	1-124-584-00	ELECT	100uF	20%	10V
C4	1-124-584-00	ELECT	100uF	20%	10V
C5	1-124-584-00	ELECT	100uF	20%	10V
C6	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C11	1-136-169-00	FILM	0.22uF	5%	50V
C12	1-136-165-00	FILM	0.1uF	5%	50V
C13	1-130-479-00	MYLAR	0.0047uF	5%	50V
C14	1-110-351-11	MYLAR	0.001uF	5%	50V
C15	1-124-584-00	ELECT	100uF	20%	10V
C16	1-136-159-00	FILM	0.033uF	5%	50V
C17	1-130-475-00	MYLAR	0.0022uF	5%	50V
C18	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C19	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C20	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C21	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C22	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C23	1-126-157-11	ELECT	10uF	20%	16V
C24	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C25	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C26	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C27	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C28	1-126-157-11	ELECT	10uF	20%	16V
C29	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C30	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C31	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C32	1-164-346-11	CERAMIC CHIP	1uF		16V
C35	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C101	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C102	1-124-257-00	ELECT	2.2uF	20%	50V
C103	1-124-257-00	ELECT	2.2uF	20%	50V
C111	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C112	1-126-157-11	ELECT	10uF	20%	16V
C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C114	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C115	1-126-157-11	ELECT	10uF	20%	16V
C116	1-136-169-00	FILM	0.22uF	5%	50V
C117	1-124-257-00	ELECT	2.2uF	20%	50V
C118	1-126-157-11	ELECT	10uF	20%	16V
C122	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C123	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C124	1-126-157-11	ELECT	10uF	20%	16V
C150	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C151	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C152	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C153	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C156	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C157	1-124-584-00	ELECT	100uF	20%	10V
C158	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C159	1-126-157-11	ELECT	10uF	20%	16V
C201	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C202	1-124-257-00	ELECT	2.2uF	20%	50V
C203	1-124-257-00	ELECT	2.2uF	20%	50V
C211	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C212	1-126-157-11	ELECT	10uF	20%	16V
C213	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C214	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C215	1-126-157-11	ELECT	10uF	20%	16V
C216	1-136-169-00	FILM	0.22uF	5%	50V
C217	1-124-257-00	ELECT	2.2uF	20%	50V
C218	1-126-157-11	ELECT	10uF	20%	16V
C222	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C223	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C224	1-126-157-11	ELECT	10uF	20%	16V
C301	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C303	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C304	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C305	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C306	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C307	1-126-163-11	ELECT	4.7uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C309	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C350	1-124-234-00	ELECT	22uF	20%	16V
C351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C354	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C355	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C356	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C357	1-124-589-11	ELECT	47uF	20%	16V
C362	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C363	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C364	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C365	1-126-157-11	ELECT	10uF	20%	16V
C366	1-124-234-00	ELECT	22uF	20%	16V
C367	1-126-934-11	ELECT	220uF	20%	16V
C401	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C402	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C403	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C405	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C407	1-126-163-11	ELECT	4.7uF	20%	50V
C409	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C501	1-124-584-00	ELECT	100uF	20%	10V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C504	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C601	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C602	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C603	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C604	1-124-584-00	ELECT	100uF	20%	10V
C605	1-126-157-11	ELECT	10uF	20%	16V
C606	1-124-234-00	ELECT	22uF	20%	16V
C607	1-126-295-11	ELECT	10uF	20%	35V
C608	1-124-234-00	ELECT	22uF	20%	16V
C609	1-124-234-00	ELECT	22uF	20%	16V
C610	1-124-234-00	ELECT	22uF	20%	16V
C611	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C612	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C613	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C614	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C615	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C617	1-126-157-11	ELECT	10uF	20%	16V
C618	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C619	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C620	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C621	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C622	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C701	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C702	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C703	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C704	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C705	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C816	1-126-936-11	ELECT	3300uF	20%	16V
		< CONNECTOR >			
CN351	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P			
* CN352	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
CN601	1-764-422-11	PLUG, CONNECTOR 12P			
CN602	1-774-809-11	CONNECTOR, BOARD TO BOARD 12P			
* CN603	1-770-212-11	CONNECTOR, BOARD TO BOARD 16P			
CN701	1-580-907-31	PLUG, CONNECTOR 8P (BUS CONTROL IN)			
CNJ801	1-774-701-11	PIN, CONNECTOR 16P			
		< JACK >			
CNJ150	1-774-699-12	JACK, PIN 4P (LINE OUT, BUS AUDIO IN)			
		< DISCHARGE GAP >			
CP1	1-519-504-11	GAP, DISCHARGE			
		< DIODE >			
D2	8-719-991-65	DIODE SB02W03C			
D3	8-719-977-25	DIODE DTZ9.1C			
D4	8-719-158-49	DIODE RD12SB2			
D5	8-719-158-49	DIODE RD12SB2			
D6	8-719-158-49	DIODE RD12SB2			
D350	8-719-988-62	DIODE 1SS355			
D361	8-719-977-25	DIODE DTZ9.1C			
D362	8-719-988-62	DIODE 1SS355			
D501	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D504	8-719-988-62	DIODE 1SS355			
D505	8-719-988-62	DIODE 1SS355			
D506	8-719-988-62	DIODE 1SS355			
D601	8-719-978-50	DIODE DTZ-TT11-10C			
D605	8-719-158-15	DIODE RD5.6S-B			
D606	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D607	8-719-914-43	DIODE DAN202K			
D609	8-719-921-63	DIODE MTZJ-7.5B			
D610	8-719-921-63	DIODE MTZJ-7.5B			
D612	8-719-921-63	DIODE MTZJ-7.5B			
D613	8-719-921-63	DIODE MTZJ-7.5B			
D614	8-719-921-63	DIODE MTZJ-7.5B			
D615	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D617	8-719-056-97	DIODE UDZ-TE-17-27B			
D618	8-719-921-63	DIODE MTZJ-7.5B			
D619	8-719-921-63	DIODE MTZJ-7.5B			
D624	8-719-988-62	DIODE 1SS355			

Ref. No.	Part No.	Description	Remark
D625	8-719-923-78	DIODE MTZJ-T-77-12	
D626	8-719-200-02	DIODE 10E2	
D627	8-719-200-02	DIODE 10E2	
D701	8-719-977-54	DIODE DTZ16C	
D702	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D703	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D704	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D705	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D801	8-719-049-38	DIODE 1N5404TU	
D802	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D803	8-719-056-97	DIODE UDZ-TE-17-27B	
D804	8-719-056-97	DIODE UDZ-TE-17-27B	
		< FUSE >	
F801	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
		< IC >	
IC1	8-759-242-66	IC TC4W66F	
IC2	8-759-823-81	IC LC7216M	
IC3	8-759-163-63	IC TDA7330BD-013TR	
IC152	8-752-075-48	IC CXA1946AQ-T6	
IC153	8-759-909-71	IC BA4558F	
IC350	8-752-076-05	IC CXA2509Q-T4	
IC360	8-759-823-87	IC LB1638M	
IC501	8-759-395-46	IC MN1884820S3X	
IC571	8-759-443-41	IC RH5VL40AA-T1C	
IC601	8-759-347-49	IC BA3918-V2	
IC701	8-759-096-16	IC MM1175XFF	
		< JACK >	
J1	1-764-808-14	JACK (ANTENNA) (AEP,UK)	
J1	1-770-279-11	JACK, ANTENNA (ISO) (ANTENNA) (G)	
J501	1-764-270-21	JACK (REMOTE IN)	
		< JUMPER RESISTOR >	
JC1	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC2	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC3	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC4	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC5	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC6	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC7	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC8	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC9	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC11	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC12	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC13	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC14	1-216-295-00	CONDUCTOR, CHIP (2012)	

Ref. No.	Part No.	Description	Remark
JC15	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC16	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC17	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC18	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC19	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC20	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC21	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC24	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC25	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC27	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC28	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC29	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC30	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC31	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC32	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC101	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC102	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC103	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC104	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC105	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC106	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC107	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC108	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC110	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC111	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC112	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC113	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC114	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC116	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC117	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC118	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC119	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC120	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC121	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC122	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC123	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC124	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC125	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC126	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC127	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC128	1-216-296-00	CONDUCTOR, CHIP (3216)	
JC129	1-216-296-00	CONDUCTOR, CHIP (3216)	
		< COIL >	
L4	1-410-971-11	INDUCTOR 10uH	
L501	1-410-971-11	INDUCTOR 10uH	
L502	1-410-971-11	INDUCTOR 10uH	
L801	1-411-669-12	COIL, CHOKE	

MAIN

Ref. No.	Part No.	Description	Remark
		< TERMINAL BOARD >	
* LUG1	1-537-770-11	TERMINAL BOARD, GROUND	
		< TRANSISTOR >	
Q2	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q3	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q4	8-729-900-53	TRANSISTOR DTC114EK	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q351	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q361	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q362	8-729-920-41	TRANSISTOR FMC3	
Q364	8-729-106-60	TRANSISTOR 2SB1115A	
Q365	8-729-900-53	TRANSISTOR DTC114EK	
Q501	8-729-921-25	TRANSISTOR FMC2	
Q503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q603	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q605	8-729-921-25	TRANSISTOR FMC2	
Q606	8-729-924-73	TRANSISTOR FMA9	
Q609	8-729-921-48	TRANSISTOR 2SD1760F5-TRPQR	
Q610	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q701	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R1	1-216-049-11	METAL GLAZE 1K 5% 1/10W	
R3	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R4	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R5	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R6	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R7	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R8	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R9	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R10	1-216-049-11	METAL GLAZE 1K 5% 1/10W	
R11	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R12	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R13	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R14	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R15	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R16	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R17	1-216-129-00	METAL CHIP 2.2M 5% 1/10W	
R19	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R101	1-216-069-00	METAL CHIP 6.8K 5% 1/10W (G)	
R101	1-216-081-00	METAL CHIP 22K 5% 1/10W (AEP,UK)	
R102	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R108	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R109	1-216-085-00	METAL CHIP 33K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R118	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R119	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R120	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R121	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R122	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R123	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R151	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R152	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R154	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R155	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R201	1-216-218-00	METAL GLAZE 6.8K 5% 1/8W (G)	
R201	1-216-230-00	METAL GLAZE 22K 5% 1/8W (AEP,UK)	
R202	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R208	1-216-230-00	METAL GLAZE 22K 5% 1/8W	
R209	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R218	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R219	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R220	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R221	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R223	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R301	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R302	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R303	1-216-076-00	METAL CHIP 13K 5% 1/10W	
R304	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R305	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R306	1-216-041-00	METAL CHIP 470 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R351	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R352	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R353	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R354	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R355	1-247-791-00	CARBON 22 5% 1/4W	
R356	1-247-791-00	CARBON 22 5% 1/4W	
R361	1-216-049-11	METAL GLAZE 1K 5% 1/10W	
R362	1-249-389-11	CARBON 4.7 5% 1/4W	
R363	1-249-389-11	CARBON 4.7 5% 1/4W	
R364	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R365	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R401	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R402	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R403	1-216-076-00	METAL CHIP 13K 5% 1/10W	
R404	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R405	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R406	1-216-041-00	METAL CHIP 470 5% 1/10W	
R407	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R408	1-216-081-00	METAL CHIP 22K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R501	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R504	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R505	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R506	1-216-109-00	METAL CHIP	330K	5%	1/10W
R507	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R508	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R509	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R510	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R511	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R513	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R514	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R515	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R516	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R517	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R518	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R521	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R522	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R523	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R524	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R525	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R526	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R527	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R528	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R534	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R535	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R536	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R537	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R540	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R542	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R544	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R545	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R546	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R547	1-216-073-00	METAL CHIP	10K	5%	1/10W
R548	1-216-073-00	METAL CHIP	10K	5%	1/10W
R550	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R552	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R557	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R601	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R602	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R603	1-216-085-00	METAL CHIP	33K	5%	1/10W
R604	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R606	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W
R608	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R609	1-216-045-00	METAL CHIP	680	5%	1/10W
R610	1-249-385-11	CARBON	2.2	5%	1/6W
R612	1-216-025-00	METAL GLAZE	100	5%	1/10W
R613	1-216-025-00	METAL GLAZE	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R614	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R615	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R616	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R617	1-216-025-00	METAL GLAZE	100	5%	1/10W
R618	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R619	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R620	1-216-174-00	METAL GLAZE	100	5%	1/8W
R621	1-216-045-00	METAL CHIP	680	5%	1/10W
R622	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R623	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R702	1-216-166-00	METAL GLAZE	47	5%	1/8W
R703	1-216-073-00	METAL CHIP	10K	5%	1/10W
R704	1-216-025-00	METAL GLAZE	100	5%	1/10W
R705	1-216-174-00	METAL GLAZE	100	5%	1/8W

< VARIABLE RESISTOR >

RV1	1-241-768-11	RES, ADJ, CARBON 220K

< SWITCH >

S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)
S601	1-571-532-21	SWITCH, TACTILE (RESET)

< TUNER >

TU1	A-3282-012-A	TUNER UNIT (TUX-006(E))

< VIBRATOR >

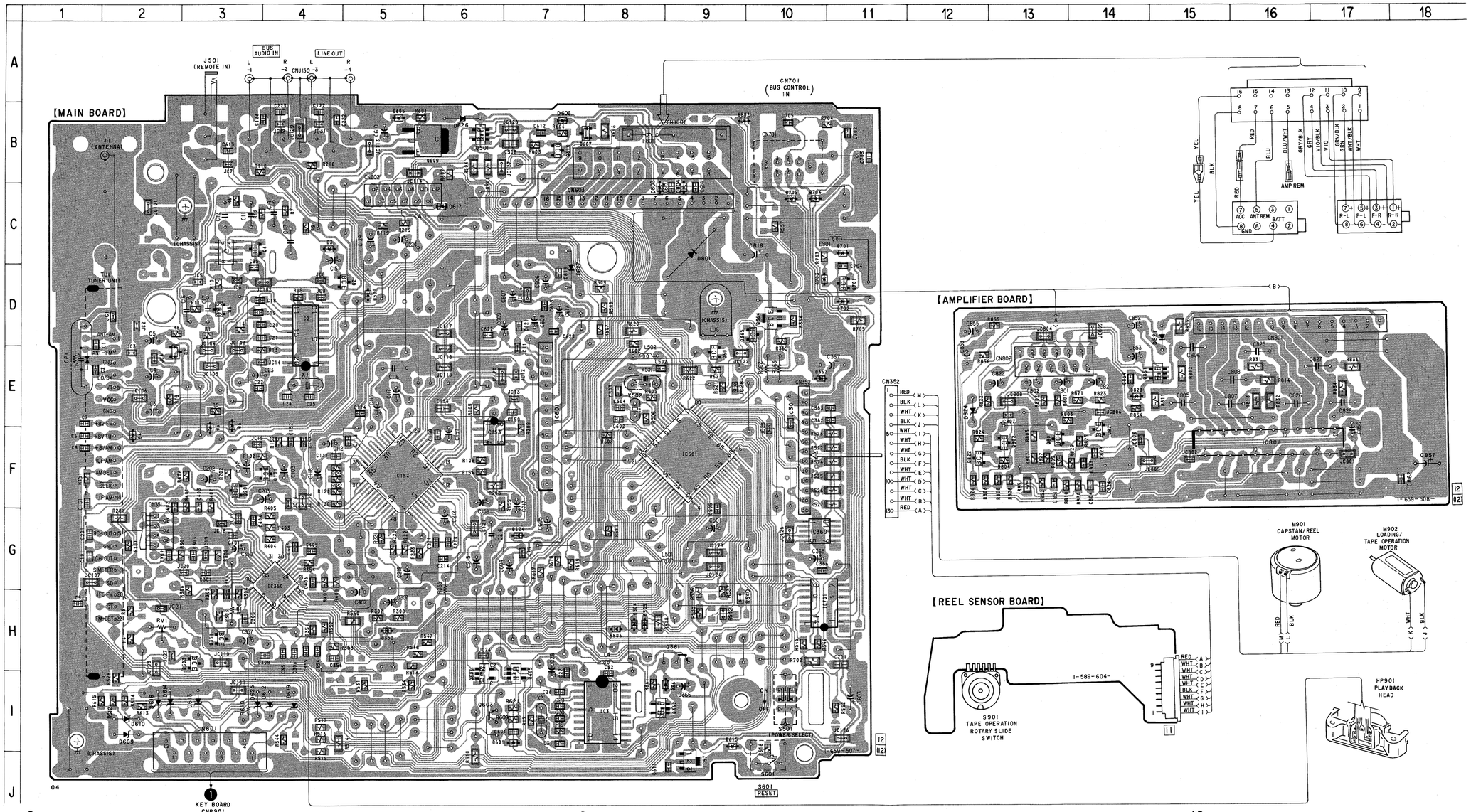
X1	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)
X2	1-760-556-11	VIBRATOR, CRYSTAL (4.332MHz)
X501	1-579-952-21	VIBRATOR, CERAMIC (8MHz)
X502	1-567-098-61	VIBRATOR, CRYSTAL (32.768kHz)

2. PRINTED WIRING BOARDS — MAIN SECTION —

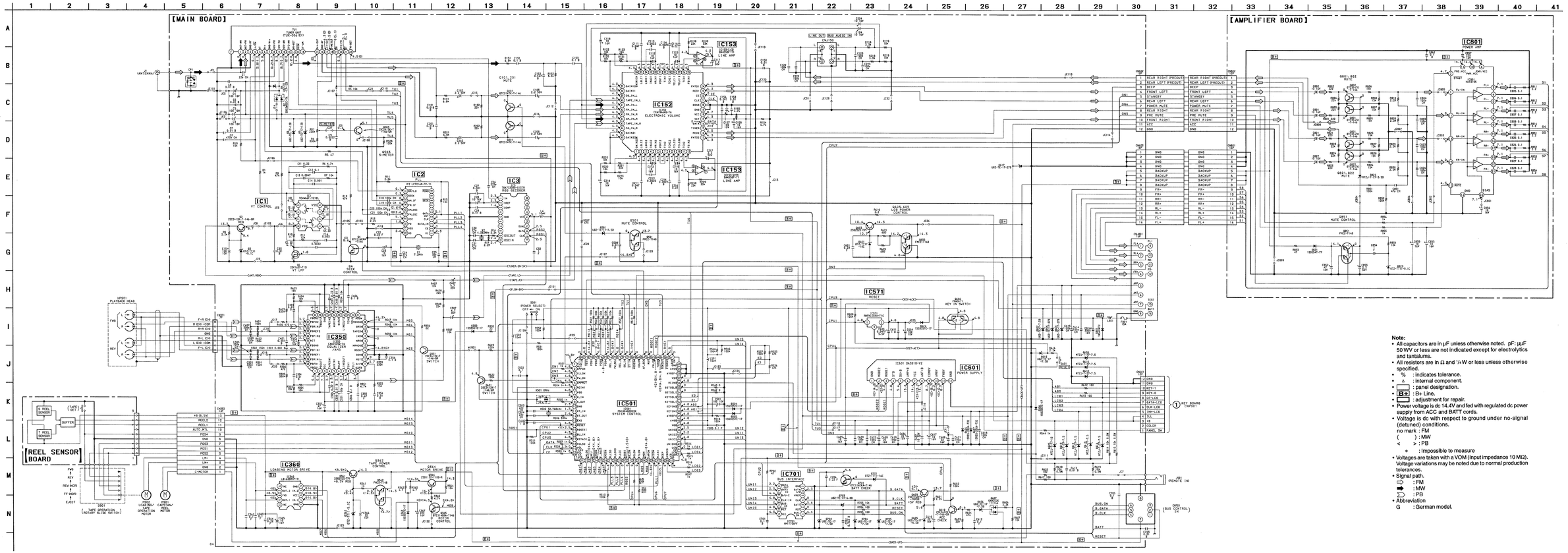
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	E-2	D824	E-12
D3	C-4		
D4	F-2	IC1	C-3
D5	E-3	IC2	D-4
D6	E-3	IC3	I-8
D350	H-5	IC152	F-5
D361	I-8	IC153	F-6
D362	E-10	IC350	G-4
D501	D-5	IC360	G-10
D504	H-8	IC501	F-9
D505	H-8	IC571	J-9
D506	H-8	IC601	E-7
D601	I-6	IC701	H-10
D605	B-5	IC801	F-16
D606	B-7		
D607	B-7	Q2	D-5
D609	I-2	Q3	D-3
D610	I-2	Q4	C-3
D612	I-4	Q101	F-4
D613	I-3	Q201	F-3
D614	I-2	Q351	H-3
D615	I-9	Q361	H-9
D617	C-6	Q362	I-8
D618	I-2	Q364	D-10
D619	I-4	Q365	D-10
D624	G-7	Q501	B-6
D625	I-3	Q503	H-3
D626	B-6	Q601	E-9
D627	D-7	Q603	I-6
D701	C-11	Q605	H-7
D702	D-11	Q606	H-6
D703	D-10	Q609	B-6
D704	C-10	Q610	B-7
D705	C-10	Q701	D-11
D801	C-9	Q801	F-13
D802	B-9	Q802	F-13
D803	C-8	Q821	F-14
D804	C-9	Q822	F-12
D821	D-15	Q851	E-15
D823	E-14		

Note:
- ○—— : parts extracted from the component side.
- △ : internal component.
- ▨ : Pattern of the rear side.



3. SCHEMATIC DIAGRAM — MAIN SECTION —


【MAIN BOARD】
【AMPLIFIER BOARD】
【REEL SENSOR BOARD】
IC1
IC2
IC3
IC152
IC153
IC350
IC360
IC501
IC571
IC601
IC701
IC801
Note:
• All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
• All resistors are in Ω and 1/4W or less unless otherwise specified.
• % : Indicates tolerance.
• Δ : internal component.
• : panel designation.
• B+ : B+ Line.
• : adjustment for repair.
• Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
• Voltage is dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
( ) : MW
< > : PB
* : Impossible to measure
• Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
• Signal path.
: FM
: MW
: PB
• Abbreviation
G : German model.